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Shoreline Policies and Regulations

INTRODUCTION

Based upon the goals established in this Master Program (Chapter 4), the following policies and regulations apply to uses, developments and activities in the shoreline area of Sultan. The policies and regulations are divided into two categories to reflect how they apply to the overall shoreline jurisdiction and within the various shoreline environments:

- *General Policies and Regulations*
- *Specific Shoreline Use and Shoreline Modification Policies and Regulations*

General Policies and Regulations

The General policies and regulations apply to all uses and activities that may occur within the shoreline jurisdiction *regardless of the Shoreline Master Program environment designation*. These policies and regulations provide the overall framework for the shoreline's management. These regulations are intended to be used in conjunction with the more specific use and activity policies and regulations in the Sultan Shoreline Master Program. General policies and regulations have been developed for the following:

1. Environmental Impacts
2. Environmentally Sensitive Areas: General
3. Environmentally Sensitive Areas: Floodplains
4. Environmentally Sensitive Areas: Wetlands
5. Public Access

In addition to the *General Policies and Regulations* listed in this chapter, all developments in the Skykomish River shoreline area must comply with the policies for shorelines of statewide significance. Those policies are listed in Chapter 3.

Specific Shoreline Use and Shoreline Modification Policies and Regulations

Specific Shoreline Use provisions are more detailed than those listed in *General Policies and Regulations*. The *Specific Shoreline Use* policies and regulations apply to specific use categories and provide a greater level of detail in addressing shoreline uses and their impacts. *Specific Shoreline Use* policies establish the shoreline management principles that apply to each use category and serve as a bridge between the various elements in the Shoreline Master Program goals (e.g., Circulation, Economic Development, Public Access, etc.) and the use regulations that follow. These regulations set physical development and management standards for development of that type of use.

This category also includes those activities that *modify* the configuration or qualities of the shoreline area. These activities are, by definition, undertaken in support of or in preparation for a permitted shoreline use. Typically, shoreline modification activities relate to construction of a physical element such as a dike, breakwater, dredged basins, landfill, etc., but they can include other actions such as clearing, grading, application of chemicals, etc. Shoreline modification activities usually are undertaken in support of or in preparation for a shoreline "use."

Policies and regulations that address shoreline modification activities are intended to prevent, reduce, and mitigate the negative environmental impacts of proposed shoreline modifications consistent with the goals of the Shoreline Management Act. A proposed development must meet all of the regulations for both applicable uses and activities as well as the general and environment designation regulations.

Policies and regulations relating to shoreline specific shoreline uses and shoreline modification activities are classified as follows:

1. Boating Facilities
2. Clearing and Grading
3. Commercial Development
4. Dredging and Disposal of Dredge Spoils
5. Instream Structures
6. Landfill
7. ~~Mining~~
8. Parking
9. Recreational Facilities
10. Residential Development
11. Shoreline Modification
 - a) Bulkheads

- b) Dikes and Levees
- c) Revetments

- 12. Signs
- 13. Stormwater Management Facilities
- 14. Transportation
- 15. Unclassified Uses and Activities
- 16. Utilities

Potential Inconsistency Between Various Policies and Regulations

The regulations of this chapter are in addition to other adopted city regulations. Where the regulations in this shoreline master program conflict with others, the regulations that provide more protection to the shoreline area shall apply as determined by the city. These interlocking development regulations are intended to make shoreline development responsive to specific design needs and opportunities along the City's shorelines, and to protect the public's interest in the shorelines' recreational and aesthetic values.

General Policies and Regulations

I. ENVIRONMENTAL IMPACTS

The Shoreline Management Act (SMA) is concerned with the environmental impacts that both a use and activity may have on the fragile shorelines of the state. Issues addressed as environmental impacts include a range of problems that may degrade the shoreline and its waters with contaminants such as petroleum products, chemicals, metals, nutrients, solid or human waste, or soil sediments from erosion.

Environmental Impact Policy

1. The adverse impacts of shoreline developments and activities on the natural environment, including critical areas and properly functioning conditions for proposed, threatened, and endangered species, and on the built environment should be minimized during all phases of development (e.g., design, construction, operation, and management).
2. Shoreline developments that protect and/or contribute to the long-term restoration of habitat for proposed, threatened, and endangered species are consistent with the fundamental goals of this Master Program. Shoreline developments that propose to enhance critical areas, other natural characteristics, resources of the shoreline, and provide public access and recreational opportunities to the shoreline are also consistent with the fundamental goals of this Master Program, and should be encouraged.

General Environmental Impact Regulations

1. All shoreline development and activity shall comply with applicable plans, policies, regulations, and rules of local, regional, state, and federal agencies with jurisdiction.
2. All shoreline development and activity shall be located, designed, constructed, and managed in a manner that mitigates adverse impacts to the environment. The preferred mitigation sequence (avoid, minimize, mitigate, compensate) shall follow that listed in WAC 173-26-201 (2)(e) (see "Mitigation," listed in the *Definitions* section of this Master Program).
3. All shoreline development and activity shall be located, designed, constructed and managed in a manner that assures no net loss.
4. All shoreline development shall be located, designed, constructed, and managed to protect the functions and values of critical areas consistent with the Sultan critical area regulations (Appendix B).
5. All shoreline development shall be located and designed to avoid or minimize the need for shoreline stabilization measures and flood protection works, such as bulkheads, revetments, dikes, levees, or substantial site regrades and dredging.

Where measures and works are demonstrated to be necessary, biostabilization techniques shall be the preferred design option unless demonstrated to be infeasible, or where other alternatives will provide less impact to the shoreline environment.

6. All shoreline development and activity shall be located, designed, constructed, operated, and managed to minimize interference with beneficial natural shoreline processes, such as water circulation, sand and gravel movement, erosion, and accretion to create no net loss of shoreline ecological function.
7. All shoreline development and activity shall recognize the primacy of preserving the natural character of the Skykomish, Sultan, and Wallace Rivers so there is no net loss of ecological functions.
8. In approving shoreline developments, the City of Sultan shall ensure that the development will maintain, enhance, or restore desirable shoreline features, as well as ensure no net loss of ecological functions. To this end, the City may adjust and/or prescribe project dimensions, location of project components on the site, intensity of use, screening, and mitigation as deemed appropriate.
9. In approving shoreline developments, the City of Sultan shall consider short and long term adverse environmental impacts. In addition, the City of Sultan shall consider the cumulative adverse impacts of the development, particularly the precedential effect of allowing one development, which could generate or attract additional development. Identified significant short term, long term, and cumulative adverse environmental impacts lacking appropriate mitigation shall be sufficient reason for permit denial.
10. As a condition of approval, the City may require periodic monitoring for up to ten years from the date of completed development to ensure the success of required mitigation. Mitigation plans shall include at a minimum:
 - Inventory of the existing shoreline environment including the physical, chemical, and biological elements and provide an assessment of their condition.
 - A discussion of the project's impacts and their effect on the ecological functions necessary to support existing shoreline resources.
 - A discussion of any federal, state, or local special management recommendations which have been developed for wetland or species or habitats located on the site.
 - An assessment of habitat recommendations proposed by resource agencies and their applicability to the proposal.
 - A discussion of measure to preserve existing habitats and opportunities to restore habitats that were degraded prior to the proposed land use activity. Mitigation plans shall include at a minimum: planting and soil specifications; success standards; and contingency plans.

- A discussion of proposed measure which mitigates the impacts of the project and established success criteria.
 - An evaluation of the anticipated effectiveness of the proposed mitigation measures.
 - A discussion of proposed management practices which will protect fish and wildlife habitat after the project site has been fully developed, including proposed monitoring and maintenance programs.
 - Contingency plan if the mitigation fails to meet established success criteria.
 - Any additional information necessary to determine the impacts of a proposal and mitigation impacts.
11. Shoreline development shall not be permitted if it significantly impacts the natural character of the shoreline, natural resources, or public recreational use of the shoreline. "Significant" is used as defined in SEPA (WAC 197-11-794).
 12. Where provisions of this Master Program conflict with each other or with other laws, ordinances or programs, the more restrictive of the provisions shall apply.

Earth

1. Gravel bars and other accretion shoreforms are valued for recreation and in some cases may provide fish spawning substrate. Therefore, developments that could disrupt these shoreforms shall be carefully evaluated and only allowed: when such disruption would not reduce shoreline ecological function; where there is a demonstrated public benefit; and where the Department of Fish and Wildlife determines there would be no significant impact to the fisheries resource.
2. Developments that alter the topography of the shoreline shall be carefully evaluated to determine if flood events will increase in frequency or severity either upstream or downstream of the site. Developments that alter the topography of the shoreline shall only be approved if flood events will not increase in frequency or severity as a result of the project.
3. Developments that alter the topography of the shoreline shall be carefully evaluated to determine if such alteration would impact natural habitat forming processes and reduce ecological functions. Mitigation shall be required for projects that would otherwise reduce ecological functions.
4. An erosion and sedimentation control program shall be submitted with a permit application that involves the removal of vegetation, stockpiling of earth or other materials, or any activity that could result in shoreline erosion and siltation of the Skykomish, Sultan or Wallace Rivers and their associated wetlands.
5. The proponent shall incorporate all known, available and reasonable methods of prevention, control and treatment (AKART) measures into the erosion and sedimentation control program. The Administrator shall determine what AKART

measures are applicable for erosion and sedimentation control for projects in shorelines.

6. Temporary and emergency control drainage measures, such as silt curtains, berms, and stormwater catch basins, shall be utilized during construction to prevent shoreline erosion and siltation of the waterbody.
7. All debris, overburden, and other waste materials from construction shall be disposed of in such manner as to prevent their entry into a waterbody.
8. All disposal sites for soils and materials resulting from the shoreline development shall be identified and approved before permit issuance.

Air

1. The applicant shall identify any emissions from the proposed development that may result in degradation of shoreline air quality. Emissions shall include any compounds, chemicals, pollutants, odors, fugitive dust, or vehicle exhaust that will be released into the air.
2. The applicant shall indicate in what quantity emissions will be released into the air and how these emissions will be controlled or eliminated.

Water

1. Shoreline development and activity shall maintain no net loss of ecological functions.
2. Shoreline development and activity shall avoid any further alteration of river currents or floodway capacity.
3. Shoreline development and activity shall minimize impacts to geohydraulic processes, surface water drainage, and groundwater recharge.
4. All practicable measures shall be taken to protect waterbodies and wetlands from all sources of pollution, including, but not limited to sedimentation and siltation, petrochemical use and spillage, discharges from failing on-site septic systems, and storage of wastes and spoils.
5. Adequate provisions to prevent water runoff from contaminating surface and groundwater shall be included in shoreline development design. The Shoreline Administrator shall specify the method of surface water control and maintenance program for shorelines.
6. For lawns and other vegetation maintained within shoreline jurisdiction, alternatives to the use of chemical fertilizers, herbicides, and pesticides shall be a preferred BMP. Where chemical fertilizer, herbicide, or pesticide use is necessary for protecting existing natural vegetation or establishing new vegetation in shoreline areas as part of an erosion control or mitigation plan, the use of time release fertilizer and herbicides shall be preferred over liquid or concentrate application.

7. The release of oil, chemical, or hazardous materials onto or into the water is prohibited. Equipment for the transportation, storage, handling, or application of such materials shall be maintained in a safe and leak-proof condition. If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected. During construction in shoreline areas, vehicle refueling and vehicle maintenance shall occur outside of shoreline areas.
8. The bulk storage of oil, fuel, chemical, or hazardous materials, on either a temporary or a permanent basis, shall be PROHIBITED, except for uses allowed under the underlying zoning in the Urban Center environment.
9. All measures for the treatment of surface water runoff for the purpose of maintaining and/or enhancing water quality shall be conducted on-site. Only if on-site treatment is not possible off-site treatment facilities be considered.

Plants and Animals

1. In general, this Master Program shall strive to protect and restore anadromous fish resources in the Skykomish, Sultan, and Wallace Rivers.
2. Shoreline development and activity shall be located and conducted in a manner that minimizes impacts to existing ecological values and natural resources of the area, conserves properly functioning conditions, and there is no net loss of ecological functions.
3. Shoreline development and activity shall be scheduled to protect biological productivity and to minimize interference with fish resources including anadromous fish migration, spawning, and rearing activity.
4. Projects shall be designed to avoid the removal of trees in shorelines, wherever practicable and to minimize the removal of other woody vegetation. Where riparian vegetation is removed, measures to mitigate the loss of vegetation shall be implemented to assure no net loss.
5. Shoreline activities and development projects shall minimize impacts to natural features of the shoreline as much as possible.
6. Shoreline development and activity shall maintain the unconstrained upstream and downstream migration of both adult and juvenile anadromous and resident fish, when applicable.
7. Mitigation shall be required of the applicant for the loss of fish and wildlife resources, natural systems, including riparian vegetation, wetlands and sensitive areas. The mitigation required shall be commensurate to the value and type of resource or system impacted by development and activity in the shoreline. On-site compensatory mitigation shall be the preferred mitigation option, except where off-site mitigation can be demonstrated to be more beneficial to fish and wildlife resources, natural systems, including riparian vegetation, wetlands and sensitive areas. If on-site compensatory mitigation is not feasible or if off-site mitigation is demonstrated to be more beneficial to the shoreline environment, the applicant shall

participate in a publicly-sponsored restoration or enhancement program or purchase credits from a state certified mitigation in accordance with Chapter 90.84 RCW (Wetlands Mitigation Banking).

8. Enhancement, restoration, and/or creation of coniferous riparian forest or forested riparian wetland shall be the preferred mitigation for impacts to riparian vegetation and wetlands when avoidance is not possible.
9. Where mitigation for loss, natural systems and resources is required, a habitat management plan shall be required. Habitat management plans shall be prepared by a professional wildlife biologist or fisheries biologist as determined appropriate by the Shoreline Administrator. The habitat management plan shall contain at a minimum:
 - A discussion of the project's effects on fish and wildlife habitat;
 - A discussion of any federal, state, or local special management recommendations which have been developed for species or habitats located on the site;
 - A discussion of measures to preserve existing habitats and restore habitats which were degraded prior to the proposed land use activity. Restoration plans shall include at a minimum: planting and soil specifications; success standards; and contingency plans;
 - A discussion of proposed measures which mitigate the impacts of the project;
 - An evaluation of the anticipated effectiveness of the proposed mitigation and restoration measures, when mitigation or restoration is proposed or required;
 - A discussion of ongoing management practices which will protect fish and wildlife habitat after the project site has been fully developed, including proposed monitoring and maintenance programs;
 - An assessment of habitat recommendations proposed by resource agencies and their applicability to the proposal; and
 - Any additional information necessary to determine the impacts of a proposal and mitigation of the impacts.
10. Habitat management plans shall be forwarded to the appropriate state and/or federal resource agencies for review and comment.
11. When necessary to ensure the effectiveness of mitigation or restoration, the Administrator may require annual monitoring reports to be provided to the City by the property owner until the mitigation and/or restoration has been in place for up to 10 years and the success standards have been met. The City shall forward the monitoring reports annually to the appropriate federal agencies along with the following:

- A list and map of the location of development permits issued in the last calendar year;
 - A contingency plan;
 - The implementation status of habitat management plans; and
 - The status of the habitat improvements.
12. Based on the habitat management plan, and comments from other agencies, the Shoreline Administrator may require mitigating measures to reduce the impacts of the proposal on critical habitat and/or wildlife areas. Mitigating measures may include, but are not limited to, increased buffers, setbacks for permanent and temporary structures, enhanced buffers, reduced project scope, limitations on construction hours, limitations on hours of operation, and relocation of access. Projects may be denied if the proposal will result in extirpation or isolation of a critical fish, wildlife, or plant species or its habitat. The authority of the State Environmental Policy Act shall provide possible mitigation for all areas of wildlife habitat not covered by this chapter.
13. Mitigation activities shall be monitored to determine effectiveness of the habitat mitigation plan. Monitoring shall be accomplished by a third party, subject to the approval of the Shoreline Administrator, and shall have the concurrence of the U.S. Fish and Wildlife Service, NOAA - Fisheries, Washington Department of Fish and Wildlife, and, where applicable, the Washington Department of Ecology. Monitoring shall occur over ten (10) years following implementation of the plan. Results of the monitoring shall be publicly available and reported to the U.S. Fish and Wildlife Service and National Marine Fisheries Service. Reports shall contain the following information:
- A list of parcels subject to this requirement;
 - The implementation status of the habitat management plans; and
 - Status of the improvements (e.g., update if success standards are being met, what types of remedial actions have been implemented).
14. If mitigation is found to be ineffective, corrective action shall be required of the property owner to satisfy the mitigation objectives. Mitigation plans shall include a contingency plan if the mitigation fails to meet established success criteria.
15. If proposed mitigation is found to be inadequate or if adequate mitigation is determined to be impossible, the application shall be denied.
16. Timing of in-water construction, development, or activity shall be determined by Washington Department of Fish and Wildlife.

Noise

1. Noise levels shall not interfere with the quiet enjoyment of the shoreline. Any noise emanating from a shoreline use or activity shall be muffled so as to not interfere with the designated use of adjoining properties. This determination shall take into consideration ambient noise levels, intermittent beat, frequency, and shrillness.

2. Ambient noise levels shall be a factor in evaluating a shoreline permit application. Shoreline developments that would increase noise levels to the extent that the designated use of the shoreline would be disrupted shall be prohibited. Specific maximum environment noise levels can be found in WAC 173-60-040.

Public Health

1. All shoreline developments shall be located, constructed, and operated so as not to be a hazard to public health and safety.

Land Use

1. The size of the shoreline development and the intensity of the use shall be compatible with the surrounding environment and uses. The City of Sultan may prescribe operation intensity, landscaping, and screening standards to ensure compatibility with the character and features of the surrounding area.
2. Shoreline developments shall minimize land use conflicts to properties adjacent to, upstream, and downstream of the proposed site.
3. In reviewing shoreline permit applications, the City of Sultan shall consider potential and current public use of the shoreline, total water surface reduction, and restriction to navigation.

Aesthetics

1. Shoreline development shall be designed and located to be aesthetically compatible with the area.
2. The applicant for a shoreline development permit for a new development must indicate in the shoreline application the effect that the proposed development will have upon the scenic public views at the proposed site. Specifically, the applicant must state in the shoreline permit application what steps have been taken in the design of the proposed development to minimize interference with scenic views enjoyed by the public.
3. If required by the Shoreline Administrator, the applicant shall provide a landscape plan that provides suitable screening but does not block scenic views.
4. Development on or over the water shall be constructed as far landward as possible to avoid interference with views from surrounding properties and adjoining waters.
5. Development on the water shall be constructed of non-reflective materials that are compatible in terms of color and texture with the surrounding area.
6. Lighting shall be properly directed or shielded to avoid off-site glare and impacts to fisheries.

Historical/Cultural

1. Wherever possible, public or private developments shall be prevented from destroying or destructively altering potential or recognizable sites having historic, cultural, scientific, or educational value as identified by appropriate authorities.
2. All shoreline permits shall contain provisions that require developers to immediately stop work and notify the City of Sultan if any items of archaeological interest are uncovered during excavation. In such cases, there should be notification to the office of archaeology and historic preservation and affected Indian tribes if archaeological resources are uncovered during excavation.
3. Where archaeological or historic sites have been identified, public access shall be required, provided the development is consistent with the provisions for public access and provided further it is determined that public access to the site will not damage or reduce the cultural value of the site.

2. ENVIRONMENTALLY SENSITIVE AREAS - GENERAL

The following policies and regulations must be factored into decisions regarding all environmentally sensitive areas planning and development within Sultan's shoreline jurisdiction. Environmentally sensitive areas are those lands especially vulnerable to development because of fragile biophysical characteristics and/or important resource values.

The City of Sultan Critical Area Regulations, as codified in Chapter 16.80 of the Sultan Municipal Code (Ordinance 918-06, 11/4/06, Appendix B), are herein incorporated into this master program except as noted. Any conflicts between the incorporated ordinances and the SMP are resolved in favor of the regulation that is most protective of the ecological functions. Exceptions to the applicability of the City of Sultan Critical Areas Regulations in the Shoreline Jurisdiction are SMC 16.80.040 Appeals, SMC 16.80.050 Exemptions, SMC 16.80.090 Building Setbacks, SMC 16.80.150 Buffers, SMC 16.80.160 Development in Buffers, SMC 16.80.200 E2 and G Landslide Hazard Areas, and 16.80.220 Reasonable Use Allowances.

Environmentally sensitive areas include but are not limited to:

- Wetlands
- Fish breeding, rearing, or feeding areas
- Wildlife habitat areas
- Floodplains and floodways
- Unstable slopes
- Aquifer Recharge areas

Environmentally Sensitive Area General Policies

1. Unique, rare, and fragile natural and man-made features as well as scenic vistas, and wildlife habitats should be preserved and protected.
2. The diversity of aquatic life, wildlife, and habitat within the shoreline should be enhanced.
3. Conserve and maintain designated open spaces for ecological reasons and for educational and recreational purposes.
4. Recognize that the interest and concern of the public is essential to the improvement of the environment and sponsor and support public information programs to that end.
5. The level of public access should be appropriate to the degree of uniqueness or fragility of the geological and biological characteristics of the shoreline (e.g., wetlands, spawning areas).
6. Intensive development of shorelines areas that are identified as hazardous or environmentally sensitive to development should be discouraged.

Environmentally Sensitive Area General Regulations

1. All shoreline uses and activities shall be located, designed, constructed and managed to protect and/or not adversely affect those natural features which are valuable, fragile or unique in the region, and to facilitate the appropriate intensity of human use of such features, including but not limited to:
 - a) Wetlands, including but not limited to marshes, bogs, and swamps;
 - b) Fish and wildlife habitats, including streams, migratory routes, and spawning areas;
 - c) Natural or man-made scenic vistas or features;
 - d) Floodplains and Floodways;
 - e) Geologically hazardous areas, including erosion, landslide, steep slope and seismic hazard areas; and
 - f) Ground water (aquifer) recharge areas.
2. The standards of the Sultan critical areas regulations are hereby incorporated into this shoreline master program by reference and shall regulate critical areas within shoreline jurisdiction.
3. The standards of the Sultan critical area regulations shall apply within areas landward of the ordinary high water mark (OHWM) and within the shoreline jurisdiction, where critical areas are present. If there are any conflicts or unclear distinctions between the Master Program and the Sultan critical areas regulations, the most restrictive requirements apply as determined by the city.

4. The use of herbicides and pesticides to remove noxious plants in the riparian management zones of rivers, streams, and wetland areas shall be PROHIBITED, except where no reasonable alternatives exist and it is demonstrated that such activity is in the public interest. A Shoreline Conditional Use permit shall be required in such cases. Mechanical removal of noxious weeds shall be timed and carried out in a manner to minimize any disruption of wildlife or habitat.

3. ENVIRONMENTALLY SENSITIVE AREAS - FLOODPLAIN MANAGEMENT

The following policies and regulations must be factored into decisions regarding all flood management planning and development within that portion of the 100-year floodplain that falls within Sultan's shoreline jurisdiction (within 200 feet of OHWM).

Floodplain management involves actions taken with the primary purpose of preventing or mitigating damage due to flooding. Floodplain management can involve planning and zoning to control development, either to reduce risks to human life and property or to prevent development from contributing to the severity of flooding. Floodplain management can also address the design of developments to reduce flood damage and the construction of flood controls, such as dikes, dams, engineered floodways, and bioengineering.

The City of Sultan Flood Damage Prevention Code, as codified in Chapter 17.08 of the Sultan Municipal Code, Ordinance 808-03, 3/9/03 (Appendix A), is herein incorporated into this master program. Any conflicts between the incorporated ordinances and the SMP are resolved in favor of the regulation that is most protective of the ecological functions. Exceptions to the applicability of the City of Sultan Flood Damage Prevention Code in the Shoreline Jurisdiction are SMC 17.08.090 and SMC 17.08.100 Variance Procedures.

Floodplain Management Policies

1. Flood management planning should be undertaken in a coordinated manner among affected property owners and public agencies and should consider the entire river system. This planning should consider off-site impacts such as erosion, accretion, and/or flood damage that might occur if shore protection structures are constructed.
2. Non-structural control solutions are preferred over structural flood control devices, and should be used wherever possible when control devices are needed. Non-structural controls include such actions as prohibiting or limiting development in areas that are historically flooded or limiting increases in peak flow runoff from new upland development. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that non-structural solutions would not be able to reduce the damage.
3. Substantial stream channel modification, realignment, and straightening should be discouraged as a means of flood protection.

4. Where possible, public access should be integrated into the design of publicly financed flood management facilities.
5. The City supports the protection and preservation of the aquatic environment and the habitats it provides, and advocates balancing these interests with the City's intention to ensure protection of life and property from damage caused by flooding.
6. Development should avoid potential channel migration impacts.

Floodplain Management Regulations

1. Development and uses proposed within the 100-year floodplain shall meet the requirements of Chapter 17.08 SMC, Flood Damage Prevention, Ordinance 808-02, 3/9/03 (Appendix A)
2. The City shall require and utilize the following information as appropriate during its review of shoreline flood management projects and programs.
 - River channel hydraulics and floodway characteristics up and downstream from the project area.
 - Existing shoreline stabilization and flood protection works within the area.
 - Physical, geological, and soil characteristics of the area.
 - Biological resources and predicted impact to riverine ecology, including fish, vegetation, and animal habitat.
 - Predicted impact upon area shore and hydraulic processes, adjacent properties, and shoreline and water uses; and,
 - Analysis of alternative flood protection measures, both non-structural and structural.
 - Mapped potential Channel Migration Zone (CMZ) information for the Sultan River, Skykomish River, and Wallace River from Snohomish County.
3. The City shall require engineered design of flood protection works where such projects may cause interference with normal river geohydraulic processes, off-site impacts, or adverse effects to shoreline resources and uses. Non-structural methods of flood protection shall be preferred over structural solutions, when the relocation of existing shoreline development is not feasible.
4. Flood protection measures shall be planned and constructed based on the Sultan flood control management plan, and in accordance with the National Flood Insurance Program and the City of Sultan's Flood Damage Prevention Code, Chapter 17.08 SMC, Ordinance 808-03, 3/9/03 (Appendix A). Flood protection measures must assure no net loss of ecological functions.

5. Projects proposed in the floodplain must assure no potential impacts to the Channel Migration Zone (CMZ) as mapped by Snohomish County. Structures should be located to avoid the need for future protection due to potential channel migration.

4. ENVIRONMENTALLY SENSITIVE AREAS - WETLANDS

The following policies and regulations must be factored into decisions regarding all development within wetlands that fall within Sultan's shoreline jurisdiction.

"Wetlands" or "wetland areas" means areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

Wetland Policies

1. Wetland ecosystems serve many important ecological and environmental functions, which are beneficial to the public welfare. Such functions include flood storage and conveyance, erosion control, sediment control, fish production, fish and wildlife habitat, recreation, water quality protection, water supply, education, and scientific research. Wetland ecosystems should be preserved and protected to prevent their continued loss and degradation.
2. Wetland areas should be identified according to established identification and delineation procedures and provided appropriate protection consistent with the policies and regulations of this Master Program and the City's streams and wetlands regulations (Sections 16.80.060, 16.80.070, and 16.80.080 SMC, Ordinance 918-06, 11/4/06, Appendix B).
3. The greatest protection should be provided to wetlands of exceptional resource value, which are defined as those wetlands that include rare, sensitive, or irreplaceable systems such as:
 - Documented or potential habitat for an endangered, threatened, or sensitive species.
 - High quality native wetland systems as determined by the Washington State Natural Heritage Program.
 - Significant habitat for fish or aquatic species as determined by the appropriate state resource agency.

- Diverse wetlands exhibiting a high mixture of wetland classes and subclasses as defined in the US Fish and Wildlife Service classification system.
 - Mature forested swamp communities.
 - Sphagnum bogs or fens.
4. A wetland buffer of adequate width should be maintained between a wetland and the adjacent development to protect the functions and integrity of the wetland. (Section 16.80.150 SMC, Ordinance 918-06, 11/4/06, Appendix B)
 5. The width of the established buffer zone should be based upon the functions and sensitivity of the wetland, the characteristics of the existing buffer, and the potential impacts associated with the adjacent land use. (Section 16.80.150 SMC, Ordinance 918-06, 11/4/06, Appendix B)
 6. All activities that could potentially affect wetland ecosystems should be controlled both within the wetland and the buffer zone to prevent adverse impacts to the wetland functions. (Section 16.80.170 and Section 16.80.180 SMC, Ordinance 918-06, 11/4/06, Appendix B)
 7. No wetland alteration should be authorized unless it can be shown that the impact is both unavoidable and necessary and that resultant impacts are offset through the deliberate restoration, creation, or enhancement of wetlands. (Section 16.80.140 SMC).
 8. Wetland restoration, creation, and enhancement projects should result in no net loss of wetland acreage and functions. Where feasible, wetland quality should be improved. (Section 16.80.140 SMC, Ordinance 918-06, 11/4/06, Appendix B)
 9. Wetlands that are impacted by activities of a temporary nature should be restored immediately upon project completion. (Section 16.80.140 SMC, Ordinance 918-06, 11/4/06, Appendix B)
 10. In-kind replacement of functional wetland values is preferred. Where in-kind replacement is not feasible or practical due to the characteristics of the existing wetland, substitute ecological resources of equal or greater value should be provided. (Section 16.80.170 SMC, Ordinance 918-06, 11/4/06, Appendix B)
 11. On-site replacement of wetlands is preferred. Where on-site replacement of a wetland is not feasible or practical due to characteristics of the existing location, replacement should occur within the same watershed and in as close proximity to the original wetland as possible.
 12. Where possible, wetland restoration, creation, and enhancement projects should be completed prior to wetland alteration. In all other cases, replacement should be completed prior to use or occupancy of the activity or development.
 13. Applicants should develop comprehensive mitigation plans to ensure long-term success of the wetland restoration, creation, or enhancement project. Such plans

should provide for sufficient monitoring and contingencies to ensure wetland persistence. (Section 16.80.140 SMC, Critical Areas Regulations Mitigation Plan Requirements, Ordinance 918-06, 11/4/06, Appendix B)

14. Applicants should demonstrate sufficient scientific expertise, supervisory capability, and financial resources to complete and monitor the mitigation project.
15. Proposals for restoration, creation, or enhancement should be coordinated with appropriate resource agencies to ensure adequate design and consistency with other regulatory requirements.
16. Activities should be prevented in wetland buffer zones except where such activities have no adverse impacts on wetland ecosystem functions. (Section 16.80.170 SMC, Ordinance 918-06, 11/4/06, Appendix B)
17. Wetland buffer zones should be retained in their natural condition unless revegetation is necessary to improve or restore the buffer.
18. Wetland education programs should be developed to increase awareness of the importance of wetlands and to inform the citizenry of protective wetland regulations.
19. The City of Sultan should distribute wetland education materials to schools, landowners, and developers in the Sultan area.

Wetland Regulations

1. Development and use proposed to be located within wetlands or their buffers shall be regulated per Section 16.80.160 SMC (Ordinance 918-06, 11/4/06, Appendix B). If a wetland of exceptional value is adjacent to a public access trail required under the provisions of this Master Program, then interpretive signage is required. The interpretive signage shall explain why the wetland is considered valuable. The Shoreline Administrator shall determine the type and extent of interpretive signage required.
2. Wetland mitigation sequencing shall be done in accordance with the Sultan Critical Area Regulations (SMC 16.80.240, Ordinance 918-06, 11/4/06, Appendix B)

5. PUBLIC ACCESS

Shoreline public access is the physical ability of the general public to reach and touch the water's edge and/or the ability to have a view of the water and the shoreline from upland locations. There is a variety of types of public access, including picnic areas, pathways and trails, promenades, bridges, street ends, ingress and egress, parking and others, although some of these are not currently provided along the City of Sultan's shorelines.

Public Access Policies

1. Public access to the Sultan shorelines does not include the right to enter upon or cross private property, except for dedicated and marked public easements.

2. Public access provisions should be incorporated into all private and public developments. Exceptions may be considered for the following types of uses:
 - A single family residence.
 - An individual multi-family structure containing fewer than three (3) dwelling units; and
 - Where deemed inappropriate, in accordance with Public Access Regulation #2, below.
3. Development uses and activities on or near the shoreline should not impair or detract from the public's visual or physical access to the water.
4. Preservation and enhancement of the public's visual access to Sultan's shoreline areas should be encouraged.
5. Public access to the shoreline should be sensitive to the unique characteristics of the shoreline and should preserve the natural character and quality of the environment and adjacent wetlands, public access should assure no net loss of ecological functions.
6. Where appropriate, public access should be provided as close as possible to the water's edge without adversely affecting a sensitive environment.
7. Except for access to the water, the preferred location for placement of public access trails is at the furthest landward edge of the riparian management zone. Public access facilities should provide auxiliary facilities, such as parking and sanitation facilities, when appropriate, and should be designed for accessibility by handicapped and physically impaired persons. Publicly owned shorelines should be limited to water-dependent or public recreation uses, otherwise such shorelines should remain protected open space.
8. Shoreline areas that hold unique value for public enjoyment should be purchased for public use, and public access area should be of sufficient size to allow passage and allow the visitor to stop, linger, and contemplate the setting.
9. Public access afforded by shoreline street ends should be preserved, maintained, and enhanced.
10. Public access should be designed to provide for public safety and to minimize potential impacts to private property and individual privacy. This may include providing a physical separation to reinforce the distinction between public and private space, achieved by providing adequate space, through screening with landscape planting or fences, or other means.
12. Public views from the shoreline upland areas should be enhanced and preserved. Enhancement of views should not be construed to mean excess removal of vegetation that partially impairs views.

13. Maximum height limits for buildings shall be set by underlying zoning in shoreline areas, of which the maximum height of a building is 30 feet. (Also see Aesthetics under Environmental Impacts).
14. Public access facilities should be constructed of environmentally friendly materials and support healthy natural processes, whenever financially feasible and possible.
15. Public access facilities should be maintained to provide a clean and safe experience and protect the environment.

Public Access Regulations

1. Chapter 8, Shoreline Restoration, addresses public access to the shoreline on public property.
2. Public access shall be required for all shoreline development and uses, except for a single family residence or residential projects containing less than three (3) dwelling units.
3. A shoreline development or use that does not provide public access may be authorized provided it is demonstrated by the applicant and determined by the City that one or more of the following provisions apply.
 - Unavoidable health or safety hazards to the public exist which cannot be prevented by any practical means;
 - Inherent security requirements of the proposed development or use cannot be satisfied through the application of alternative design features or other solutions;
 - The cost of providing the access, easement, or an alternative amenity is unreasonably disproportionate to the total long-term cost of the proposed development.
 - Unacceptable environmental harm such as damage to fish spawning areas will result from the public access which cannot be mitigated; or
 - Significant undue and unavoidable conflict between the proposed access and adjacent uses would occur and cannot be mitigated.

Provided further, that the applicant has first demonstrated and the City has determined that all reasonable alternatives have been exhausted, including but not limited to:

- Regulating access by such means as limiting hours of use to daylight hours.
- Designing separation of uses and activities, with such means as fences, terracing, hedges, and landscaping.
- Providing access that is physically separated from the proposal, such as a nearby street end, an offsite viewpoint, or a trail system.

3. Developments, uses, and activities shall be designed and operated to avoid blocking, reducing, or adversely interfering with the public's visual or physical access to the water and the shorelines. In providing visual access to the shoreline, the natural vegetation shall not be excessively removed either by clearing or by topping.
4. Public access sites shall be connected directly to the nearest public street.
5. Public access sites shall be made barrier free for the physically disabled where feasible.
6. Required public access sites shall be fully developed and available for public use at the time of occupancy or use of the development or activity.
7. Public access easements and permit conditions shall be recorded on the deed where applicable or on the face of a plat or short plat as a condition running in perpetuity with the land. Said recording with the Auditor's office shall occur at the time or permit approval (RCW 58.17.110; relating to subdivision approval or disapproval).
8. The standard state approved logo and other approved signs that indicate the public's right of access and hour of access shall be constructed, installed, and maintained by the applicant in conspicuous locations at public access sites. In accordance with *Public Access* regulation #1 in this section, signs controlling or restricting public access may be approved as a condition of permit approval.
9. Future actions by the applicant or other parties shall not diminish the usefulness or value of the public access site.
10. Development on or over the water shall be constructed as far landward as possible to avoid interference with views from surrounding properties to the shoreline and adjoining waters.
11. Physical public access shall be designed to prevent significant impacts to sensitive natural systems.
12. Whenever financially feasible and practical, the City shall require the use of environmentally friendly materials and technology in such things as building materials, paved surfaces, porous pavement, etc., when developing public access to the shoreline.
13. Where public access is to be provided through the Osprey Park trail plan the following requirements shall apply:
 - a. *The trail shall be no wider than 8 feet, plus 1 foot gravel shoulders, for a maximum width of 10 feet.*
 - b. *Other conditions described in an adopted trail plan.*
 - c. Where feasible the trail shall be placed on the furthest landward edge of the riparian management zone.

Specific Shoreline Use and Shoreline Modification Policies and Regulations

INTRODUCTION

The following policies and regulations apply to specific types of development that may be proposed along the shorelines of Sultan. A proposal can consist of one or more of these developments. ~~For example, a proposal to mine river gravel would have to be consistent with the policies and regulations pertaining to industrial development and mining.~~ If the proposed project includes other specific developments such as road, then these aspects of the project must also be reviewed for consistency with the applicable policies and regulations listed below. In addition, all specific shoreline developments must be consistent with the Shoreline Environmental designations of Chapter 5, the goals and objectives of Chapter 4 and the preceding general policies and regulations of this chapter.

The City of Sultan Uniform Development Code, as codified in Chapter 16.48, 16.56, 16.60, and 16.92 as Ordinance 630 § 2 – 1995, 7/18/95 (Appendix D) and The City of Sultan Sign Code as codified in Chapter 22.06 as Ordinance 806-03 § 1 (Appendix D), are herein incorporated into this master program. Any conflicts between the incorporated ordinances and the SMP are resolved in favor of the resolution that is most protective of the ecological functions.

This Master Program provides specific policies and regulations for the following types of specific shoreline development:

1. Boating Facilities
2. Clearing and Grading
3. Commercial Development
4. Dredging and Disposal of Dredge Spoils
5. Instream Structures
6. Landfill
7. ~~Mining~~
8. Parking
9. Recreational Facilities
10. Residential Development
11. Shoreline Modification

- a) Bulkheads
- b) Dikes and Levees
- c) Revetments
- 12. Signs
- 13. Stormwater Management Facilities
- 14. Transportation
- 15. Unclassified Uses and Activities
- 16. Utilities

In specific environments, some uses may be prohibited.

1. BOATING FACILITIES

Boating facilities generally include boat launch ramps (public and private), wet and dry boat storage, related sales and service for pleasure and commercial watercraft.

Note: Docks and marinas are not permitted in the Sultan shoreline area.¹

Boating Facilities Policies

1. Boating facilities can have a significant impact on riverine habitat and river mechanics; for this reason, the impacts of boat facilities should be reviewed thoroughly before boating facilities are permitted in the Sultan shoreline jurisdiction.
2. Public and community boating facilities are preferred over individual private facilities.
3. New commercial boating facilities may be allowed in the Sultan shoreline. When allowed, such facilities should be designed to accommodate public access and enjoyment of the shoreline location. Depending on the scale of the facility, public access should include walkways, viewpoints, restroom facilities, and other recreational uses.
4. Docks shall be prohibited in the Sultan shoreline.
5. Dry boat storage should not be considered a water-oriented use. Only boat hoists, boat launch ramps, and access routes associated with a dry boat storage facility should be considered a water-oriented use.

¹ RCW 90.58.030(3)(e)(7) further requires that, if subsequent construction with a fair market value of more than \$25,000 occurs within five years of completion of the prior construction, the subsequent construction shall be considered a shoreline substantial development and be subject to review.

Boating Facilities Regulations

General

1. Boating facilities, as defined in this section, shall require a Shoreline Conditional Use Permit, unless otherwise specified.
2. The City of Sultan shall require the following information in its review and evaluation of boating facility proposals:
 - a) A description of the existing natural shoreline features and uses;
 - b) A description of the geohydraulic processes at the site including, accretion/erosion characteristics, flood levels, and surface drainage;
 - c) A description of biological resources and habitats in the upland and aquatic environments;
 - d) An estimate of the area of surface water to be appropriated;
 - e) A description of any shore defense works or shoreline stabilization and flood protection proposed as part of the project; and
 - f) Other information determined by the Shoreline Administrator to be relevant to the protection of the shoreline habitat and any endangered species present.
3. Boating facilities may be permitted only if:
 - a) It can be demonstrated that the facility will not adversely impact critical fish or wildlife habitat areas; associated wetlands; or properly functioning conditions for proposed, threatened or endangered species; and
 - b) Adequate mitigation measures ensure that there is no net loss of the functions or values of riparian habitat as a result of the facility.

Boat Launch Ramps

1. Boat launch ramps shall locate on stable shorelines where water depths are adequate to eliminate or minimize the need for channel maintenance activities.
2. Boat launch ramps may be permitted on accretion shoreforms, provided any necessary grading is not harmful to affected resources and any accessory facilities are located out of the floodway.
3. Where boat ramps are permitted, parking and shuttle areas shall not be located on scarce accretion shoreforms, which have high value for general shore recreation.

4. Boat launch ramps may be permitted on stable non-erosional banks where the need for shore stabilization structures is minimized.
5. Boat launch ramps may be permitted for individual residences where the slope of the riverbank does not exceed twenty-five percent (25%) or where substantial cutting, grading, filling, or defense works are not necessary.
6. Ramp structures shall be placed near flush with the foreshore slope to minimize the interruption of geohydraulic processes.
7. Boat launch sites that are open to the public shall have adequate restroom facilities operated and maintained in compliance with Snohomish County Health District regulations.

Docks

1. Docks are prohibited in the Sultan shoreline.

Dry Boat Storage

1. Dry boat storage shall not be considered a water-oriented use and must respect the appropriate shoreline environment setback.
2. Only water-dependent aspects of dry-boat storage, such as boat hoists and boat launch ramps may be permitted within shoreline environment setbacks.
3. Boat launch ramps associated with dry boat storage shall be consistent with applicable requirements in this section.

Marinas

1. Marinas are prohibited in the Sultan shoreline.

Boating Facilities Environment Specific Regulation

Natural: Boating facilities are prohibited in areas designated Natural Environment.

2. CLEARING AND GRADING

Clearing and grading is the activity associated with developing property for commercial, industrial, residential, or public use. Clearing involves the removal of vegetation or topsoil. Grading involves the physical alteration of the earth's surface by either excavation or filling.

Clearing and Grading Policies

1. Clearing and grading activities should only be allowed in association with an allowed (permitted) shoreline development.

2. Clearing and grading activities should be limited to the minimum necessary to accommodate the shoreline development or a landscape scheme developed in conjunction with the shoreline development.
3. Clearing and grading should not be permitted within shoreline environment setbacks, unless fish and wildlife habitat will not be degraded.
4. Best management practices should be used during clearing and grading to control erosion.
5. For extensive clearing and grading proposals, a plan addressing species removal, revegetation, irrigation, erosion and sedimentation control, and other methods of riparian corridor protection should be required.

Clearing and Grading Regulation

General

1. Clearing and grading activities shall only be allowed in association with a permitted shoreline development.
2. All clearing and grading activities shall be limited to the minimum necessary for the intended development, including any clearing and grading approved as part of a landscape plan. Surfaces cleared of vegetation and not developed must be replanted as soon as possible. Within two (2) years the vegetative cover must be reestablished.
3. Clearing and grading within shoreline environment setbacks shall comply with the special requirements for **Riparian Management Zones** (following).
4. Outside of riparian management zones, normal non-destructive pruning and trimming of vegetation for maintenance purposes shall be permitted.
5. Clearing invasive non-native shoreline vegetation listed on the Snohomish County Noxious Weed List is permitted in shoreline locations, provided hand held equipment is used and native vegetation is promptly reestablished in the disturbed area.
6. All shoreline development and activity shall use effective measures to minimize increases in surface water run off that may result from clearing and grading activity. The applicant must include in the proposal the methods that will be used to control, treat, and release runoff so that receiving water quality and shore properties and features shall not be adversely affected. Such measures may include but are not limited to dikes, berms, catch basins or settling ponds, installation and maintenance of oil/water separators, grassy swales interceptor drains, and landscaped buffers.
7. Stabilization of exposed erosional surfaces along shorelines shall, whenever feasible, utilize soil bioengineering techniques.

Riparian Management Zone Regulations

A riparian management zone is the area within the shoreline environment setback. These setbacks are measured landward from the ordinary high water mark (OHWM) or floodway, whichever is more inclusive, and are as follows:

<u>Shoreline Environment</u>	<u>Width</u>
Urban Center	100 feet
Urban Conservancy	100 feet
Shoreline Residential	100 feet
Natural	200 feet
Aquatic	n/a

The purposes for maintaining a riparian management zone are to preserve the natural character of the shoreline, to protect the functions and values of critical areas, to conserve properly functioning conditions, and to enhance the recreational experience for the public using the river and adjacent lands. *Chapter 3: Shorelines of Statewide Significance*, describes these purposes in more detail and establishes the riparian management zone as a primary means of complying with the priorities for shorelines of statewide significance.

In order to maintain riparian corridors, the City of Sultan shall regulate the cutting, trimming, and clearing of vegetation within shoreline environment setbacks, as follows:

1. Topping of trees and trimming of vegetation may be permitted within the riparian management zone, provided:
 - a) This provision is not interpreted to allow clearing of vegetation, and
 - b) The Shoreline Administrator determines, after consultation with the Washington Department of Fish and Wildlife, that such topping and trimming is not detrimental to the riparian functions and values.
2. Clearing within the riparian management zone is regulated as follows:
 - a) For water-oriented uses, clearing shall be limited to the minimum necessary for the successful operation of the use, subject to the additional clearing and grading requirements of this section and the provisions of this Master Program.
 - b) For nonwater-oriented uses, clearing is permitted for river access provided:
 - That it meets the requirements for public access as set forth in the *Public Access* section.
 - c) Clearing for landscape purposes may be permitted upon approval of a detailed landscape plan prepared by a qualified professional. The landscape plan shall include:

- A map illustrating the distribution of existing plant communities in the area proposed for landscaping. The map must be accompanied by a description of the vegetative condition of the site, including plant species, plant density, fish and wildlife habitat values, and any natural or man-made disturbances.
 - A description of the shade conditions created by existing vegetation. This description shall include an inventory of vegetation overhanging the river as well as a determination of how much shade is created by standing trees, during midday at midsummer. All trees that shade the river during midday at midsummer shall be retained.
 - A detailed landscape map indicating which areas will be preserved and which will be cleared. This map must identify trees that will be removed or selectively thinned.
 - Drawings illustrating the proposed landscape scheme, including the type, distribution, and density of plants. Any pathways or nonvegetated portions must be noted.
 - A description of any vegetation introduced for the purposes of fish and wildlife habitat. Loss of wildlife habitat shall be mitigated at a replacement ratio of one-to-one-and-a-quarter (1:1.25) (habitat lost to habitat replaced).
 - A letter from the Washington Department of Fish and Wildlife acknowledging review of the proposed landscape plan and finding that fish and wildlife habitat will not be degraded.
 - The plan shall include planting and soil specifications, success standards, and a contingency plan.
- d) In all cases where clearing may be approved, exposed soils shall be immediately developed or revegetated with native plants to prevent erosion. Unless it would interfere with river access or the successful operation of a water oriented use, cleared land within twenty-five (25) feet of the floodway shall be revegetated with native plants that benefit fish and wildlife habitat, such as low mass shrubbery, overhanging bushes, and tall grasses.
- e) In all cases where clearing is followed by revegetation, native plants shall be preferred.²
- f) In all cases where revegetation involves the placement of groundcover, shrubs, or trees the following regulations shall apply:

² A list of native plants that are adapted to riparian conditions will be provided by the City of Sultan, in consultation with appropriate local and state agencies. The Washington Department of Fish and Wildlife can also provide a list of species that benefit riparian habitat areas.

- At the time of planting, groundcover must be planted such that complete coverage is attained within one growing season.
 - At the time of planting, shrubs must be eighteen (18) inches high. Shrubs shall be planted such that within two years the shrubs will cover at least sixty percent (60%) of the area that would be covered when the shrubs have attained a mature size.
 - At the time of planting, deciduous trees must be at least two (2) inches in caliper as measured one (1) foot above grade, and coniferous trees must be at least five (5) feet in height.
 - The applicant shall implement an irrigation system to ensure survival of vegetation planted in compliance with the riparian management provisions of this Master Program.
 - Throughout the monitoring period, the applicant shall replace any unhealthy or dead vegetation planted consistent with an approved landscape plan.
- g) The City may require a performance bond as a condition of permit approval, to ensure compliance with the riparian management zone regulations.

Clearing and Grading Environment Specific Regulation

Urban Center and Shoreline Residential: Clearing and grading shall be a permitted activity when associated with a development that is consistent with the provisions of this Master Program.

Urban Conservancy and Natural: Clearing and grading may be permitted as a Shoreline Conditional Use when associated with a development that is consistent with the provisions of this Master Program.

3. COMMERCIAL DEVELOPMENT

Commercial development is a use that is involved in wholesale, retail, service, and business trade.

Commercial Development Policies

1. Priority of any commercial development should be given to water dependent and water enjoyment uses. This includes restaurants that provide a view of the river to customers; motels and hotels that provide walking areas for the public along the shoreline; office buildings; and retail sales buildings that have a riverfront theme with public access to the waterfront.

2. Over-the-water commercial development shall be prohibited.
3. New commercial development on shorelines should be encouraged to locate in areas with existing commercial uses.
4. Commercial development should be required to provide physical or visual access to the shoreline or other opportunities for the public to enjoy shorelines of statewide significance.
5. Site plans for commercial developments should include multiple use concepts such as open space and recreation.
6. Commercial development in the shoreline jurisdiction should include landscaping to enhance the shoreline area.

Commercial Regulations

1. Over-water construction of commercial uses is prohibited, provided this prohibition does not preclude the development of boat launch ramps or other river access facilities that are consistent with the intent of this Master Program and necessary for the operation of an associated commercial use.
2. Alternatives to conventional storm water treatment, such as use of pervious materials, shall be considered in order to minimize impacts due to runoff and the need for storm water treatment. The city shall refer to the Ecology Storm Water Manual as adopted in SMC 16.92.010(D), Ordinance 630 § 2 – 1995, 7/18/95 (Appendix D) to deal with runoff and non-point source pollution.
3. All commercial development within shoreline jurisdiction shall provide for public visual and physical access to the shoreline. Where on-site public access is appropriate, commercial development shall dedicate, improve, and provide maintenance for a pedestrian easement that provides area sufficient to ensure usable access to and along the shoreline for the general public. Public access easements shall be a minimum of twenty-five (25) feet in width and shall comply with the public access standards contained in this Master Program (see the policies and regulations in the *Public Access* section).
4. Off-site public access to the Sultan shoreline shall be required if on-site public access would pose an unacceptable risk to the public health, safety, and welfare as identified in the Public Access Regulations. Off-site public access must meet the same standards and requirements as on-site public access.³
5. All commercial loading and service areas shall be located on the upland side of the commercial activity or provisions shall be made to screen the loading and service areas from the shoreline.

³ NOTE: Offsite public access could be provided either through a payment in lieu agreement with the City or through the purchase of land or an easement at a location appropriate to provide the access deemed necessary.

6. Commercial development shall be designed and maintained in a neat and orderly manner, consistent with the character and features of the surrounding area.
7. All commercial development within shoreline jurisdiction shall assure no net loss of ecological functions.

Commercial Environment Specific Regulations

Urban Center: Commercial developments that are allowed by Title 16.56 SMC, Unified Development Code, Ordinance 630 § 2, 1995, 7/18/95 – Appendix D, are permitted uses in accordance with the underlying zoning, unless otherwise stated in this Master Program, the more restrictive of these regulations applies. Over-the-water commercial uses are prohibited.

Urban Conservancy and Aquatic: Water-oriented commercial development may be permitted as a Shoreline Conditional Use. Non-water-oriented commercial development is prohibited.

Shoreline Residential: Only those commercial uses that are permitted as home occupations under Chapter 16.48 SMC, Ordinance 630 § 2, 1995, 7/18/95 – Appendix D, may be permitted. Home occupations shall be permitted uses unless otherwise stated in this Master Program.

Natural: Commercial development is prohibited.

4. DREDGING AND DISPOSAL OF DREDGE SPOILS

Dredging is the removal or displacement of earth such as gravel, sand, mud, or silt from lands covered by water. Lands covered by water include stream beds and wetlands. Dredging is normally done for specific purposes or uses such as maintaining navigation channels, constructing bridge footings, or laying submarine pipelines or cable.

Dredge spoil is the material removed by dredging. Dredge spoil disposal is the depositing of dredged materials on land or into water bodies for the purpose of either creating new or additional lands or for disposing of the material in an acceptable manner.

Dredging and Dredge Spoil Policies

1. Dredging waterward of the ordinary high water mark for the primary purpose of obtaining fill material is prohibited.
2. Dredging operations should be planned and conducted to minimize interference with navigation; avoid creating adverse impacts on other shoreline uses, properties, and values; and avoid adverse impacts to habitat areas and fish species.
3. Dredge spoil disposal in water bodies should be prohibited except for habitat improvement.

4. Dredge spoil disposal on land should occur in areas where environmental impacts will not be significant.

Dredging and Dredge Spoil Regulations

1. Applications for shoreline dredging and dredge spoil disposal shall provide, at a minimum, the following information:
 - a) Physical, chemical, and biological analysis of material to be dredged, including material composition, particle size distribution, volume and amount, organic content, source of material, volatile solids, chemical oxygen demand (COD), grease and oil, oxygen and heavy metals, nutrients, sulfides and biological organisms, both permanent and migratory/transitory.
 - b) Dredging technique, schedule, frequency, hours of operation, and procedures.
 - c) Method of dredge spoil disposal, including the location, size, capacity and physical characteristics of the soil disposal area, transportation method and routes, hours of operation, and schedule.
 - d) Location and stability of bedlands adjacent to proposed dredging area.
 - e) Hydraulic analyses, including current flows, direction, and projected impacts. Hydraulic modeling studies are required for large scale, extensive dredging projects.
 - f) Assessment of water quality impacts.
 - g) Biological assessment including migratory, seasonal, and spawning factors.
2. Dredging and dredge spoil disposal shall be permitted only where it is demonstrated that the proposed actions will not:
 - a) Result in significant damage to water quality, fish, and other essential biological elements, and will not adversely alter natural drainage and circulation patterns, currents, river flows, or reduce floodwater capacities, or adversely impact properly functioning conditions for proposed, threatened or endangered species or the functions and values of critical areas.
3. Proposals for dredging and dredge spoil disposal shall include all feasible mitigating measures to protect habitats and to minimize adverse impacts such as turbidity, release of nutrients, heavy metals, sulfides, organic materials, or toxic substances, depletion of oxygen, disruption of food chains, loss of benthic productivity, and disturbance of fish runs and important localized biological communities.
4. Dredging and dredge spoil disposal shall not occur in wetlands, except if the wetland alteration policies and regulations in this chapter are followed. Dredging and dredge spoil disposal in wetlands can occur for the purposes of enhancing valuable wetland functions. A design prepared by a qualified wetland scientist is required prior to allowing dredging and/or disposal of dredge spoils into a wetland.

5. Dredging within the floodway shall be permitted only:
 - For navigational purposes;
 - In conjunction with a water-dependent use;
 - As part of an approved habitat improvement project;
 - To improve flood control, water flow or water quality, provided that all dredged material shall be contained and managed so as to prevent it from reentering the water;
 - ~~For mining and/or mineral extraction;~~
 - In conjunction with a bridge, utility, navigational structure, or instream structure, for which there is a documented public need and where other feasible sites or routes do not exist.
6. When dredging is permitted, the dredging shall be the minimum necessary to accommodate the proposed use.
7. Dredging shall utilize techniques that cause minimum dispersal and broadcast of bottom material; hydraulic dredging shall be used wherever feasible in preference to agitation dredging.
8. Dredged spoil material may be disposed at approved upland sites. If these upland sites are dry lands and fall within shoreline jurisdiction, the disposal of dredge spoils shall be considered grading and must be consistent with all applicable provisions of this Master Program. If these upland sites are associated wetlands, then the disposal of dredge spoils shall be considered "Landfill" and must be consistent with all applicable provisions of this Master Program.
9. Depositing dredge spoils within water and riparian management zones shall be allowed only by Shoreline Conditional Use for one of the following reasons:
 - For wildlife habitat improvements;
 - To correct problems of material distribution that are adversely affecting fish resources; or
 - When land disposal alternatives are more detrimental to shoreline resources than depositing it in water areas.
10. If suitable alternatives for land disposal are not available or are infeasible, water disposal sites shall be identified consistent with the following criteria:
 - Disposal will not interfere with geohydraulic processes;
 - The dredge spoil has been analyzed by qualified personnel and found to be minimally or nonpolluting;

- Aquatic life will not be adversely affected; and
 - The site and method of disposal meets all requirements of applicable regulatory agencies.
11. The City may impose reasonable limitations on dredge disposal operating periods and hours and may require buffer strips at land disposal sites.

Dredging Environment Specific Regulations

Aquatic: Dredging may be permitted as a Shoreline Conditional Use.

Dredge Spoil Disposal Environment Specific Regulations

Aquatic, Urban Conservancy, Shoreline Residential and Natural: Dredge soil disposal may be permitted as a Shoreline Conditional Use.

Urban Center: Dredge soil disposal shall be a permitted use when associated with a development that is consistent with the provisions of this Master Program.

5. INSTREAM STRUCTURES

Instream structures function for the impoundment, diversion, or use of water for hydroelectric generation and transmission (including both public and private facilities), flood control, irrigation, water supply (both domestic and industrial). Instream structures can also function for recreational or fisheries enhancement and for the discharge of effluent. Both the structures themselves and their support facilities are covered by this section. This applies to their construction, operation and maintenance, as well as the expansion of existing structures and facilities.

Instream Structure Policies

1. Location and Design Features

- Applications for instream structures should clearly document the suitability of the proposed site and alternative locations for the specific type of development, including alternative locations. Such site suitability analysis should thoroughly consider the environmental effects of the proposed facilities at the primary site and at alternative sites.
- All instream structures should be designed to permit natural transport of bed load materials.
- Instream structures and their support facilities should be designed to minimize removal of riparian vegetation and the necessity of massive shore defense structures.

- All nonwater-oriented facilities associated with instream structures, such as staging and storage areas, switching yards, utility transmission lines and in many cases power houses, should be located outside of shoreline jurisdiction.
- In determining the appropriateness of hydroelectric development, the recommendations and conclusions of the Northwest Power Planning Council (1988) or equivalent state-adopted site ranking study should be considered.
- Mitigation should be required for loss of fisheries and wildlife resources, natural systems including wetlands, and other sensitive areas. No net loss in critical area function, value, or acreage should occur as a result of instream structures and properly functioning conditions for proposed, threatened or endangered species shall be conserved. When required, mitigation measures should be properly planned and monitored to ensure their effectiveness.
- When possible, instream structures should be designed and constructed to insure public access to and along the shoreline, in accordance with the public access policies and regulations contained in this Master Program. Existing public access and recreational opportunities should be retained, enhanced, or replaced.

Instream Structures Regulations

1. Instream structures may be permitted as a shoreline conditional use.
2. All permit applications shall contain, at a minimum, the following:
 - A site suitability analysis that provides sufficient justification for the proposed site. The analysis must fully address alternative sites for the proposed development.
 - The applicant must address the need for the project.
 - Proposed location and design of the instream structure, accessory structures, and access/service roads.
 - Provision for public access to and along the affected shoreline and proposed recreational features at the site, where applicable.
 - A plan that describes the extent and location of vegetation that is proposed to be removed to accommodate the proposed facility, and any site revegetation plan required by this Master Program.
 - A hydraulic analysis prepared by a licensed professional engineer which sufficiently describes the project's effects on floodway hydraulics, including potential increases in base-flood elevation, changes in stream velocity, and the potential for re-direction of the normal flow of the affected river.

- Biological resource inventory and analysis that sufficiently describes the project's effects on fisheries and wildlife resources, prepared by a professional biologist.
- Provision for erosion control, protection of water quality, and preservation of fishery and wildlife resources during construction.
- Long-term management plans that described, in sufficient detail, provisions for protection of in-stream resources during construction and operation. The plan shall include means for monitoring its success.

3. Structural Development

- Instream structures shall be designed, located, and constructed in such a manner as to avoid extensive topographical alteration.
- Instream structures that divert water shall return flow to the stream in as short a distance as possible.
- All instream structures shall be designed to permit the natural transport of bedload materials.
- Powerhouses associated with hydroelectric facilities shall be located a minimum of fifty (50) feet from the floodway, provided that this does not apply to raceways.

Instream Structure Environment Specific Regulations

Aquatic: Instream structures may be permitted as a Shoreline Conditional Use.

6. **LANDFILL**

Landfill is the placement of soil, rock, existing sediment or other material (excluding solid waste) to create new land, tideland or bottom land area along the shoreline below the OHWM, or on wetland or upland areas in order to raise the elevation.

Landfill Policies

1. Landfills waterward of the floodway should be discouraged and only allowed when necessary to facilitate water-dependent uses consistent with this Master Program for necessary river crossings and for projects beneficial to the environment.
2. The perimeter of landfills should be designed to avoid or eliminate erosion and sedimentation impacts, both during initial landfill activities and over time.
3. Where permitted, landfills should be the minimum necessary to provide for the proposed use and should be permitted only when tied to a specific development proposal that is permitted by the Master Program. Speculative landfill activity should be prohibited.

4. Mitigation for wetland impacts must be implemented pursuant to wetland policies and regulations contained in this Shoreline Master Program.

Landfill Regulations

1. Applications for landfill permits shall include the following:
 - a) Proposed use of the landfill area;
 - b) Physical, chemical, and biological characteristics of the fill material;
 - c) Source of landfill material.
 - d) Method of placement and compaction;
 - e) Location of landfill relative to natural and/or existing drainage patterns;
 - f) Location of the landfill perimeter relative to the floodway;
 - g) Perimeter erosion control or stabilization means;
 - h) Type of surfacing and runoff control devices; and
 - i) Location of wetlands or other sensitive areas.
2. Landfill waterward of the floodway shall be permitted as a shoreline conditional use only:
 - a) In conjunction with a water-dependent use permitted under this Master Program.
 - b) In conjunction with a bridge, utility or navigational structure for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist.
 - c) As part of an approved shoreline restoration project; or
 - d) For fisheries, aquaculture, or wildlife habitat enhancement projects.
 - e) Pier or pile supports shall be utilized in preference to landfills. Landfills for approved road development in floodways or wetlands shall be permitted only if pile or pier supports are proven structurally infeasible.
 - f) Landfills shall only be permitted in conjunction with a specific development already permitted by this Master Program or proposed simultaneously as part of a Shoreline Conditional Use Permit application. Speculative landfills are prohibited.
3. Landfill shall be permitted only where it is demonstrated that the proposed action will not:

- Result in significant damage to water quality, fish, and/or wildlife habitat.
 - Adversely alter natural drainage and current patterns or significantly reduce floodwater capacities.
4. Where landfills are permitted, the landfill shall be the minimum necessary to accommodate the proposed use.
 5. Dredging and dredge material disposal shall be done in a manner which avoids or minimizes significant ecological impacts and impacts which cannot be avoided should be mitigated in a manner that assures no net loss of shoreline ecological functions.
 6. Dredging waterward of the ordinary high-water mark for the primary purpose of obtaining fill material shall not be allowed, except when the material is necessary for the restoration of ecological functions. When allowed, the site where the fill is to be placed must be located waterward of the ordinary high-water mark.
 7. Disposal of dredge material on shorelands or wetlands within a river's channel migration zone shall be discouraged. In the limited instances where it is allowed, such disposal shall require a shoreline conditional use permit.
 8. Disposal of dredge material shall be done in accordance with the Washington State DNR Dredge Material Management Program. DNR manages disposal sites through a Site Use Authorization (SUA), all other required permits must be provided to DNR prior to the DNR issuing a SUA for dredge disposal.
 9. Landfills shall be designed, constructed, and maintained to prevent, minimize, and control all material movement, erosion, and sedimentation from the affected area. Landfill perimeters shall be designed and constructed with silt curtains, vegetation, retaining walls, or other mechanisms to prevent material movement. In addition the sides of the landfill shall be appropriately sloped to prevent erosion and sedimentation, both during initial landfill activities and afterwards.
 10. Fill materials shall be clean sand, gravel, soil, rock, or similar material. Use of polluted dredge spoils and sanitary landfill materials are prohibited. The developer shall provide evidence that the material has been obtained from a clean source prior to fill placement.
 11. Landfills shall be designed to allow surface water penetration into aquifers, if such conditions existed prior to the fill.

Landfill Environment Specific Regulations

Landfill may be permitted as a shoreline Conditional Use. Landfill only applies to areas waterward of the OHWM, in wetlands, or on shorelands in a manner that raises the elevation or creates dry land.

7. MINING

Mining is the removal and primary processing of naturally occurring materials from the earth for economic use. For purposes of this Master Program, "processing" includes screening, crushing, and stockpiling of materials removed from the site. Mining activities also include in-water dredging activities related to mineral extraction. Processing does not include general manufacturing, such as the manufacture of concrete.

Mining Policies

1. Only the mining of sand and gravel from river bars should be permitted, providing that all appropriate permits are secured for the proposed activity and the activity is consistent with this SMP and protective of endangered, threatened, or sensitive species. All other mining activities should be encouraged to locate outside shoreline jurisdiction.
2. Mining should not be allowed in unique and fragile areas, and all areas where negative impacts to endangered, threatened, or sensitive species may occur.
3. Mining activities should allow the natural shoreline systems to function with a minimum of disruption during their operation and should return the site to as near natural a state as possible upon completion.
4. All impacts shall be mitigated, and where possible, shoreline enhancement should also be encouraged.

Mining Regulations

1. Mining operations landward of the OHWM are prohibited.
2. Mining waterward of the OHWM is prohibited, except for scalping of river bars, which may be permitted as a shoreline conditional use, provided the proposed activity: secures all necessary permits; is consistent with the City's critical area regulations; the removal of the specified quantities of the sand and gravel will not adversely affect the natural process of gravel transportation of the river system; is protective of endangered, threatened, or sensitive species; and that in any one year, the mining activity removes no more than one half of the material that is predictably replaced by deposition each year.
3. Excavation of sand, gravel, and other river materials by the open pit method is prohibited.
4. All mining impacts shall be mitigated, and where possible, shoreline enhancement shall be encouraged.

Mining Environment Specific Regulations

Aquatic: Mining may be permitted as a Shoreline Conditional Use.

Urban Center, Shoreline Residential, Urban Conservancy, Natural: Mining is prohibited.

8. PARKING

Parking is the use of land for the purpose of accommodating motor vehicles, motorized equipment, or accessory units, such as trailers. Land used for this purpose is leveled, cleared, and often covered with an impermeable surface.

Parking Policies

1. Parking in shoreline areas should be minimized.
2. Parking within shoreline jurisdiction should directly serve a permitted use on the property and should be sensitive to the adjacent shorelines and properties.
3. Parking facilities in shoreline areas should be located and designed to minimize adverse impacts including those related to stormwater runoff, water quality, visual qualities, public access, and vegetation and habitat maintenance.
4. Encourage the use of pervious materials in parking facilities.
5. Landscaping should consist of native vegetation in order to enhance the habitat opportunities within the shorelines area.
6. Discourage location of parking facilities in sensitive areas.

Parking Regulations

Parking for specific land use activities within the City of Sultan is subject to the requirements and standards set forth in the Sultan Municipal Code (Chapter 16.60 SMC, Ordinance 630 § 2, 1995, 7/18/95 – Appendix D). In addition, the following parking requirements shall apply to all developments within shoreline jurisdiction.

1. The location of parking areas in or near sensitive areas shall be avoided.
2. Parking in shoreline areas must directly serve an approved shoreline use.
3. Parking areas within shoreline jurisdiction shall be designed and landscaped to minimize adverse impacts upon adjacent shorelines and abutting properties. The landscaping shall consist of native vegetation, to be planted within one (1) year after completion of construction and provide an effective screening three (3) years after planting. Adequate screening or landscaping for parking lots shall consist of one or more of the following:
 - A strip 5 feet wide landscaped with trees, shrubs, and groundcover.
 - A building or enclosed structure.
 - A strip of land not less than 2.5 feet in width that is occupied by a continuous wall, fence, plant material, or combination of both; which shall be at least 3.5 feet high at time of installation. The plant material shall be evergreen and spaced not more than 1.5 feet on center if pyramidal in shape, or not more than 3 feet if wider in branching habit. If the plant material is used in

conjunction with a wall or fence meeting the minimum height requirements then said material may be of any kind and spacing.

The requirement for screening may be waived by the Administrator, where screening would obstruct a significant view from public property or public roadway.

4. All landscaping shall be designed to provide biofiltration functions for runoff from the parking area.
5. Alternatives to conventional storm water treatment, such as use of pervious materials, shall be considered in order to minimize impacts due to runoff and the need for storm water treatment. The city shall refer to the Ecology Storm Water Manual as adopted in SMC 16.92.010(D), Ordinance 630 § 2 -1995, 7/18/1995, (Appendix D) to deal with runoff and non-point source pollution.
6. All landscaping must be maintained in a neat and orderly manner. In no event shall such landscape areas be used for the storage of materials or parking of automobiles, or recreational or other vehicles.
7. Parking facilities shall not be permitted over the water.

Parking - Environment Specific Regulations

Urban Conservancy, Shoreline Residential and Natural: Parking may be permitted as a Shoreline Conditional Use and the following additional requirements shall apply.

1. Parking as a primary use shall be prohibited within the shoreline jurisdiction.
2. Parking or storage of recreational vehicles or travel trailers as a primary use shall be prohibited in all shoreline environment jurisdictions.
3. Parking shall be located on the landward side of the development unless parking is contained within a permitted structure. Where there is no available land area on the landward side of the development, parking shall extend no closer to the shoreline than a permitted structure.

Urban Center: Parking shall be a permitted use when consistent with the provisions of this Master Program.

9. RECREATIONAL FACILITIES

Recreational development provides opportunities for the refreshment of body and mind through forms of play, sports, relaxation, amusement, or contemplation. It includes facilities for passive recreational activities, such as hiking, photography, viewing, and fishing. It also includes facilities for active or more intensive uses such as parks, campgrounds, and golf courses. This section applies to both publicly- and privately-owned shoreline facilities intended for use by the public or a private club, group, association, or individual.

Recreational Facilities Policies

1. The coordination of local, state, and federal recreation planning should be encouraged so as to mutually satisfy recreational needs. Shoreline recreational developments should be consistent with all adopted park, recreation, and open space plans.
2. Shoreline areas with a potential for providing recreation or public access opportunities should be identified for this use and acquired by lease or purchase and incorporated into the public park and open space system.
3. Small scale, non-motorized, recreational prospecting should only occur with DNR access and through a Hydraulic Project Approval (HPA) from WDFW. Placer mining and mineral prospecting should also comply with WDFW's Gold and Fish Pamphlet.
4. The linkage of shoreline parks, recreation areas, and public access points in a linear system, such as hiking paths, bicycle paths, and scenic drives should be encouraged.
5. Recreational developments should be located and designed to preserve, enhance, or create scenic views and vistas.
6. The use of jet-skis and similar recreational equipment should be restricted to special areas. This type of activity should be allowed only where no conflict exists with other uses and wildlife habitat.
7. All recreational developments should make adequate provisions for:
 - Vehicular and pedestrian access, both on-site and off-site.
 - Proper water, solid waste, and sewage disposal methods.
 - Security and fire protection for the use itself and for any use-related impacts to adjacent private property.
 - The prevention of overflow and trespass onto adjacent properties.
 - Buffering of such development from adjacent private property or natural area.

Recreational Facilities Regulations

1. Valuable shoreline resources and fragile or unique areas, such as wetlands and accretion shore forms, shall be used only for non-intensive and nonstructural recreation activities.
2. Small scale, non-motorized, recreational gold mining shall only be allowed in the aquatic zone, and all prospectors must confirm with Snohomish County and other applicable agencies prior to prospecting.
3. For recreation developments such as golf courses and playfields that require the use of fertilizers, pesticides, or other chemicals, the applicant shall submit plans demonstrating the methods to be used to prevent these chemical applications and resultant leachate

from entering adjacent water bodies. Vegetation buffer strips and, if possible, shade trees shall be required between rivers, streams or wetlands and recreation developments that use fertilizers, pesticides, or other chemicals. The Administrator shall determine the width necessary for buffer strips. Buffers shall not be less than fifty (50) feet wide, measured on a horizontal plane, perpendicular to the floodway edge. The developer shall also be required to leave a chemical-free swath at least one hundred (100) feet in width next to water bodies and wetlands. (See also Environmental Impact Regulations – Water).

4. Recreational facilities shall make adequate provisions, such as screening, buffer strips, fences, and signs, to prevent overflow onto adjacent private properties.
5. Waterward of the ordinary high water mark, no recreational buildings or structures shall be built, except water-dependent and/or water-enjoyment structures such as bridges and viewing platforms. Such uses may be permitted as a shoreline conditional use.
6. Proposals for recreational development shall include adequate facilities for water supply, sewage, and garbage disposal.

Recreational Facilities Environments

Aquatic, Urban Center, Urban Conservancy, Shoreline Residential and Natural: Recreation facilities may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

Aquatic: Small scale, non-motorized, recreational prospecting may be permitted as an exempt use when consistent with the provision of this Master Program.

10. RESIDENTIAL DEVELOPMENT

Residential development refers to one or more buildings, structures, lots, parcels, or portions of parcels that are used or intended to be used to provide a place of abode for human beings. Residential development includes single family residences, duplexes, other detached dwellings, multifamily residences, apartments, townhouses, mobile home parks, other similar group housing, condominiums, subdivisions, planned unit developments, and short subdivisions. Residential development also includes accessory uses and structures such as garages, sheds, tennis courts, swimming pools, parking areas, fences, cabanas, saunas, and guest cottages. Residential development does not include hotels, motels, or any other type of overnight or transient housing or camping facilities.

Note: A Shoreline Substantial Development permit is not required for construction of a single family residence by an owner, lessee, or contract purchaser for his own use or the use of his family. However, such construction and all normal appurtenant structures must otherwise conform to this Master Program. In addition, when applicable, all residential development is subject to the Shoreline Variance and shoreline conditional use requirements of this Master Program. For example, a Shoreline Variance will be required for any residential development that proposes to locate within the shoreline environment setbacks established in Chapter 5 of this Master Program.

Uses and facilities associated with residential development, which are identified as separate use activities in this Master Program, such as clearing and grading and landfill are subject to the regulations established for those uses in this section. Clearing and grading may be exempted from the Shoreline Substantial Development Permit (SSDP) requirement, provided it is associated with an exempted single family residence and the following conditions are met: the clearing and grading activity is confined to the construction site and grading does not exceed 250 cubic yards.

Residential Policies

1. In accordance with the Public Access requirements in Chapter 6, residential developments of three (3) or more dwelling units should provide dedicated and improved public access to the shoreline.
2. Residential development and accessory uses should be prohibited over the water.
3. New subdivision development should be encouraged to cluster dwelling units in order to preserve natural features, minimize physical impacts, and provide for public access to the shoreline.
4. In all new subdivisions and planned residential developments, joint use shoreline facilities should be encouraged.
5. Accessory development should be designed and located to blend into the site as much as possible. Accessory uses and structures should be located landward of the principal residence when feasible.
6. Residential development should apply best management practices in developing surface and storm water facilities. The city shall refer to the Ecology Storm Water Manual as adopted in SMC 16.92.010(D), Ordinance 630 § 2 – 1995, 7/18/95, (Appendix D) to deal with runoff and non-point source pollution.

Residential Regulations

1. Residential development is prohibited waterward of the OHWM and within setbacks set within each shoreline environment designation. Riparian setbacks are specified for each shoreline environment designation in Chapter 5.
2. Residential development shall assure no net loss of ecological functions.
3. Residential development shall not be approved if geotechnical analysis demonstrates that flood control or shoreline protection measures are necessary to create a residential lot or site area. Residential development shall be located and designed to avoid the need for structural shore defense and flood protection works in the foreseeable future.
4. If wetlands or other environmentally sensitive areas are located on the development site, clustering of residential units shall be required in order to avoid these areas. Clustering shall be in accordance with the Sultan development regulations (SMC 16.80 SMC, Ordinance 918-06, 11/4/06, Appendix D).

5. Storm drainage and treatment facilities shall be required by the City for proposals five or more dwellings. Drainage facilities shall be separate from sewage disposal facilities. Drainage systems shall include provisions to prevent the direct entry of uncontrolled and untreated surface water runoff into receiving waters. Such provisions may include retention ponds, vegetated swales, and artificial wetlands. The city shall refer to the Ecology Storm Water Manual as adopted in SMC 16.92.010(D) Ordinance 744-00 (Appendix D) to deal with runoff.
6. Subdivisions and planned unit developments of five (5) or more waterfront lots/units shall dedicate, improve, and provide maintenance provisions for a pedestrian easement that provides area sufficient to ensure usable access to and along the shoreline for all residents of the development and the general public. When required, public access easements shall be a minimum of twenty-five (25) feet in width and shall comply with the public access standards contained in this Master Program (see *Chapter 6 section on Public Access*).

Residential Environment Specific Regulations

Urban Conservancy and Natural: Single family residential development may be permitted as a Shoreline Conditional Use landward of the OHWM when consistent with the provisions of this Master Program, including applicable environment setbacks.

Shoreline Residential and Urban Center: Residential development shall be permitted landward of the OHWM when consistent with the provisions of this Master Program and the underlying zoning.

11. SHORELINE MODIFICATION

Shoreline modification involves developments that provide riverbank stabilization or flood control. The purpose of such developments is to reduce adverse impacts caused by natural processes, such as current, flood, tides, wind, or wave action. Shoreline modification includes all structural and nonstructural means to reduce erosion of riverbanks and/or flooding.

Nonstructural methods include setbacks of permanent and temporary structures, relocation of the structure to be protected, ground water management, planning, bioengineering or "soft" engineered solutions, and regulatory measures to avoid the need for structural stabilization

"Hard" structural stabilization measures refer to those with solid, hard surfaces, such as concrete bulkheads, while "soft" structural measures rely on softer materials, such as biotechnical vegetation measures or beach enhancement. Generally, the harder the construction measure, the greater the impact on shoreline processes, including sediment transport, geomorphology, and biological functions. Structural shoreline stabilization also often results in vegetation removal and damage to near-shore habitat and shoreline corridors. There is a range of measures varying from soft to hard that include:

- Vegetation enhancement;

- Upland drainage control;
- Biotechnical measures;
- Beach enhancement;
- Anchor trees;
- Gravel placement;
- Rock revetments;
- Gabions;
- Concrete groins;
- Retaining walls and bluff walls; and
- Bulkheads.

Note: As applied to shoreline stabilization measures, "normal repair" and "normal maintenance" include the patching, sealing, or refinishing of existing structures, the replenishment of sand or other material that has been washed away, and the replacement of less than twenty percent (20%) of the structure. Normal maintenance and normal repair are limited to those actions that are typically done on a periodic basis. Construction that causes significant ecological impacts is not considered normal maintenance and repair.

As applied to shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure that can no longer adequately serve its purpose.

Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.

The following policies and regulations apply to all actions and developments that modify the shoreline for the purposes of preventing riverbank erosion or flooding. Following these general requirements, specific policies and regulations are provided for bulkheads, revetments, and dikes and levees.

Shoreline Modification Policies - General

1. Riprapping and other bank stabilization measures should be located, designed, and constructed primarily to prevent damage to the existing primary structure.
2. All new development should be located and designed to prevent or minimize the need for shoreline stabilization measures and flood protection works. New development requiring shoreline stabilization should be discouraged.
3. Shoreline modifications are only allowed when and where there is a demonstrated necessity to support or protect an allowed primary structure or legally existing

shoreline use that is in danger of loss or substantial damage or are necessary for reconfiguration of shoreline for mitigation or enhancement purposes.

4. Proposals for shoreline modifications should be designed to protect life and property without impacting upstream or downstream uses of the floodway or river resources.
5. Stabilization and protection works which are more natural in appearance, more compatible with ongoing shore processes, and more flexible for long term floodway management such as protective berms or vegetative stabilization should be encouraged over structural means such as concrete bulkheads or extensive revetments.
4. All Shoreline stabilization proposals require a geotechnical analysis.
5. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would not be able to reduce the damage.
6. Shoreline modifications shall only be constructed of clean natural materials such as rock and gravel, use of other non-natural materials not designed for the purpose of shoreline stabilization should be prohibited.
7. Substantial river channel realignment should be discouraged as a means of shoreline stabilization and flood protection.
8. The design of bank stabilization or protection works should provide for the long term multiple use of shoreline resources and public access to public shorelines. In the design of publicly financed or subsidized works, consideration should be given to providing pedestrian access to shorelines for low intensity outdoor recreation.
10. All flood protection measures should be placed landward of the natural floodway boundary, including wetlands that are directly interrelated and inter-dependent with the river.
11. If through construction and/or maintenance of shoreline modification developments, the loss of riparian vegetation and wildlife habitat will occur, mitigation should be required.

Shoreline Modification Regulations - General

1. All new shoreline modification activity shall be located and designed to prevent or minimize the need for bank stabilization and flood protection works.
2. All shoreline development and activity shall be located, designed, constructed, and managed in a manner that mitigates adverse impacts to the environment. The preferred mitigation sequence (avoid, minimize, mitigate, compensate) shall follow that listed in WAC 173-26-201 (2)(e)
3. The City shall require and utilize the following information during its review of shoreline stabilization and flood protection proposals:
 - Purpose of the project;

- Hydraulic characteristics of the river within one-half (0.5) mile upstream and downstream of the proposed project;
 - Existing shoreline stabilization and flood protection devices within one-half (0.5) mile upstream and downstream of the proposed project;
 - Biological characteristics of the area, including fish and wildlife resources;
 - Construction material and methods;
 - Physical, geological, and/or soil characteristics of the area;
 - Geotechnical report;
 - Predicted impact upon area shore and hydraulic processes, adjacent properties, and shoreline and water uses; and
 - Alternative measures (including non-structural) that will achieve the same purpose.
3. Shoreline stabilization and flood protection measures shall not be designed and constructed in such a manner as to result in channelization of normal stream flows.
4. River and stream channel direction modification, and realignment are prohibited unless they are essential to uses that are consistent with this Master Program.
5. New nonwater-dependent development, including single-family residences, that includes structural shoreline stabilization shall not be allowed unless *all* of the conditions below apply, otherwise new stabilization measures are limited to protecting only existing developments:
- The need to protect the development from destruction due to erosion caused by natural processes, such as currents and waves, is demonstrated through a geotechnical report.
 - The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.
 - There will be no net loss of ecological functions or impacts on adjacent or down current properties.
 - Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements and soft structural solutions such as bioengineering, are not feasible or not sufficient.
 - The structure will not cause significant impacts to functions and values of critical areas or properly functioning conditions for proposed, threatened, and endangered species.

- Other mitigation/restoration measures are included in the proposal.
6. Flood control diking shall be landward of the floodway base (100-year frequency) and any wetlands directly interrelated and interdependent with the river.
 7. Upon project completion, all disturbed shoreline areas shall be restored to as near pre-project configuration as possible and replanted with appropriate vegetation. All losses in riparian vegetation or wildlife habitat shall be mitigated at a ratio of 1:1.25 (habitat lost to habitat replaced).
 8. Shoreline stabilization and flood protection works are prohibited in wetlands and on point and channel bars. They are also prohibited in salmon or trout spawning areas.
 9. Shore modification shall to the extent possible, be planned, designed, and constructed to allow for channel migration. These developments shall not reduce the volume and storage capacity of rivers and adjacent wetlands or flood plains.
 10. Use of car bodies, scrap building materials, asphalt from street work, or any discarded piles of equipment or appliances for the stabilization of shorelines shall be prohibited.

Shoreline Modifications

Permitted and shoreline conditional use requirements for bulkheads, revetments, and dikes and levees are specified under these headings below. All other forms of shoreline modification must be approved as a shoreline conditional use within all of the shoreline environments.

BULKHEADS

Bulkheads are walls usually constructed parallel to the shore whose primary purpose is to contain and prevent the loss of soil by erosion, wave, or current action. Bulkheads are used to protect riverbanks by retaining soil at the toe of the slope or by protecting the toe of the bank from erosion and undercutting.

Bulkheads are typically constructed of poured-in-place concrete, steel or aluminum sheet piling, wood, or wood and structural steel combinations.

Note: The Shoreline Management Act only exempts the construction of a normal protective bulkhead common to an existing single family residence from the Shoreline Substantial Development Permit requirement. However, these structures are required to comply with all the policies, prohibitions, and development standards of this Master Program.

Bulkhead Policies

1. Defense works of natural materials, such as protective berms, beach enhancement, or vegetative stabilization are strongly preferred over structural defense works of materials such as steel, wood, or concrete. Proposals for bulkheads should demonstrate that natural methods are unworkable.

2. Bulkheads should be located, designed, and constructed primarily to prevent damage to the existing primary structure. New development that requires bulkheads should be discouraged.
3. Shoreline uses should be located in a manner so that bulkheading is not likely to become necessary in the future.
4. The cumulative effect of allowing bulkheads along river segments should be evaluated. If it is determined that the cumulative effect of bulkheads would have a deleterious effect on the shoreline, then exemptions and permits should not be granted.
5. Bulkheads should not be approved as a solution to geo-physical problems such as mass slope failure, sloughing, or landslides. Bulkheads should only be approved for the purposes of preventing bank erosion by the river.

Bulkhead Regulations

1. Bulkheads may be allowed only when evidence is presented which conclusively demonstrates that one of the following conditions exist:
 - Serious river erosion threatens an established use or existing primary structure on upland property.
 - Bulkheads are necessary to the operation and location of water-dependent, water-related, or water-enjoyment activities consistent with this Master Program; provided that all other alternative methods of shore protection have proven infeasible.
 - A bulkhead is necessary to retain a landfill that has been approved consistent with the provisions of this Master Program.
 - Proposals for bulkheads must first demonstrate through a geotechnical analysis that use of natural materials and processes and non-structural or soft structural solutions to bank stabilization are unworkable.
2. The construction of a bulkhead for the primary purpose of retaining a landfill shall be allowed only in conjunction with:
 - A water-dependent use;
 - A bridge or navigational structure for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist;
 - A wildlife or fish enhancement project.
3. Bulkheads shall not be located on shorelines where valuable geo-hydraulic or biological processes are sensitive to interference. Examples of such areas include wetlands and accretion landforms.

4. Bulkheads are to be permitted only where local physical conditions, such as foundation bearing materials, and surface and subsurface drainage, are suitable for such alterations.
5. If possible, bulkheads shall be located landward of the OHWM and generally parallel to the natural shoreline. In addition:
 - Where no other bulkheads are adjacent, the construction of a bulkhead shall be as close to the eroding bank as possible and in no case shall it be more than three (3) feet from the toe of the bank.
 - A bulkhead for a permitted landfill shall be located at the toe of the fill.
 - Where permitted a bulkhead must tie in flush with existing bulkheads on adjoining properties, except where the adjoining bulkheads extend waterward of the floodway, the requirements set forth in this section shall apply.
6. Replacement bulkheads may be located immediately in front of the bulkhead to be replaced such that the two (2) bulkheads will share a common surface, except where the existing bulkhead has not been backfilled or has been abandoned and is in serious disrepair. In such cases, the replacement bulkhead shall not encroach waterward of the OHWM or existing structure unless the residence was occupied prior to January 1, 1992 and there are overriding safety or environmental concerns.
7. Bulkheads shall be sited and designed consistent with appropriate engineering principles. All bulkheads proposals require a geotechnical study.
8. When a bulkhead is required at a public access site, provision for safe access to the water shall be incorporated into bulkhead design.
9. Bulkheads shall be designed for the minimum dimensions necessary to adequately protect the development.
10. Stairs or other permitted structures may be built into a bulkhead but shall not extend waterward of it.
11. Bulkheads shall be designed to permit the passage of surface or groundwater without causing ponding or saturation of retained soil/materials.
12. Adequate toe protection consisting of proper footings, a fines retention mesh, etc., shall be provided to ensure bulkhead stability without relying on additional riprap.
13. Materials used in bulkhead construction shall meet the following standards:
 - Bulkheads shall utilize stable, nonerodable, homogeneous materials such as concrete, wood, and rock that are consistent with the preservation and protection of the ecological habitat.
 - Shore materials shall not be used for fill behind bulkheads, except clean dredge spoil from a permitted off-site dredge and fill operation.

Bulkhead Environment Specific Regulations

Aquatic, Urban Conservancy, Shoreline Residential and **Natural**: Normal protective bulkheads associated with an existing single family house and that are exempt from the Shoreline Substantial Development Permit requirement, shall be permitted when consistent with the provisions of this Master Program. All other bulkheads may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

DIKES AND LEVEES

Dikes and levees are man-made earthen embankments for the purpose of flood control.

Note: Dikes and levees existing on September 8, 1975, which were created, developed, or utilized primarily as an agricultural drainage or diking system may be operated and maintained without obtaining a shoreline Substantial Development Permit. Maintenance does not include expanding the length or width of the dike or levee. However, reconstruction to the original built height may be allowed, if settling has occurred.

Dikes and Levees Policies

1. Dikes and levees should be located, designed, constructed, and maintained so that the resultant effects on the river processes will not cause significant damage to adjacent properties or valuable resources.
2. Proposals for dikes and levees should be designed to protect life and property without impacting upstream or downstream uses of the floodway or river resources.
3. Decisions regarding dikes and levees should balance the benefits of development with potential flood losses and destruction of natural and beneficial floodplain values. Floodplain values include water resource values (moderation of floods, water quality maintenance, and groundwater recharge), living resource values (fish, wildlife, and plant resources and habitat), cultural resource values (open space, natural beauty, scientific study, outdoor education, and recreation) and cultivated resource values (agriculture, aquaculture, and forestry).

Dikes and Levees Regulations

1. Dikes and levees shall be limited in size to the minimum height required to protect adjacent lands from the projected flood stage, as identified in the Sultan Flood Damage Prevention code, Chapter 17.08 SMC, Ordinance 808-03, 3/9/03, Appendix A.
2. Dikes and levees shall not be placed in the floodway, except as current deflectors necessary for protection of bridges and roads.
3. Public access to the shoreline shall be provided. Improved trail systems along diked or leveed shorelines are preferred.
4. Proposals for dikes and levees shall contain a detailed evaluation of potential losses to floodplain values. This evaluation shall address:

- Groundwater discharge
 - Associated wetlands
 - Water quality
 - Erosion/sedimentation.
5. Dikes and levees shall only be authorized by Shoreline Conditional Use Permit and shall be consistent with all flood control management plans and regulations adopted by the City of Sultan.

Dikes and Levees Environment Specific Regulation

Aquatic, Urban Center, Urban Conservancy, Shoreline Residential and Natural:

Dikes and levees may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

REVETMENTS

A revetment is a sloped shoreline structure built to protect an existing eroding shoreline or newly placed fill against river currents. Revetments are most commonly built of randomly placed boulders (riprap) but may also be built of sand cement bags, paving, or building blocks, gabions (rock filled wire baskets) or other systems and materials. The principal features of a revetment, regardless of type is a heavy armor layer, a filter layer, and toe protection.

Revetment Policies

1. The use of armored structural revetments should be limited to situations where it is determined that nonstructural solutions such as bioengineering, setbacks, buffers or any combination thereof, will not provide sufficient shoreline stabilization.
2. Revetments should be designed, improved, and maintained to provide public access whenever possible.

Revetment Regulation

1. The Shoreline Administrator shall require professional design of a proposed revetment, if it is determined that uncertainties exist, such as:
 - Inadequate data on local geophysical conditions;
 - Inadequate data on stream flow, velocity, and/or flood capacity; and
 - Effects on adjacent properties.
2. Bank revetments, where permitted shall be placed at the extreme edge of the riverbank.

3. Design of public works shall include and provide improved access to public shorelines whenever possible.
4. When permitted, the siting and design of revetments shall be performed using appropriate engineering principals, including guidelines of the U.S. Soil Conservation Service and the U.S. Army Corps of Engineers.
5. If an armored revetment is employed the following design criteria shall be met:
 - The size and quantity of the material shall be limited to only that necessary to withstand the estimated energy intensity of the hydraulic system;
 - Filter cloth must be used to aid drainage and help prevent settling;
 - The toe reinforcement or protection must be adequate to prevent a collapse of the system from river scouring or wave action; and
 - Fish habitat components, such as large boulders, logs, and stumps shall be considered in the design subject to Hydraulic Project Approval by the Washington Department of Fisheries.

Revetment Environment Specific Regulation

Aquatic, Urban Conservancy, Shoreline Residential and Natural: Revetments may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

12. SIGNS

Sign Policy

Signs should be designed and placed so that they are compatible with the natural quality of the shoreline environment and adjacent land and water uses.

Sign Regulation

Signs within the City of Sultan are subject to the requirements and standards specified in the Sultan sign regulations (Chapter 22.06 SMC, Ordinance 806-03 § 1, Appendix D). In addition, the following sign requirements shall apply to signs within shoreline jurisdiction.

1. Signs shall only be allowed in, or over water for water navigation, highway or railroad crossings as necessary for operation, safety and direction; or related and necessary as part of a water dependent use.
2. The following types of signs are permitted in all upland shoreline environments (e.g., excluding all areas waterward of the ordinary high water mark in the shoreline environment):

- Water navigational signs, highway and railroad signs necessary for operation, safety, and direction.
 - Public information signs directly relating to an allowed local shoreline activity.
 - Off-premise, free standing signs for community identification, information, or directional purposes.
 - Signs with "changing messages," as long as the information is limited to time-temperature-date or public messages.
 - National, site, and institutional flags for temporary decorations customary for special holidays and similar events of a public nature.
 - The U.S. and Washington State flags.
 - Temporary directional signs to public or quasi-public events, provided these signs are removed within fourteen (14) days following the event.
 - Signs identifying developments approved in compliance with the provisions of this Master Program.
3. Temporary or obsolete signs shall be removed within ten (10) days of elections, closures of business, or termination of any other function. Examples of temporary signs include real estate signs, directions to events, political advertisements, event or holiday signs, construction signs.
 4. Signs that do not meet the policies and regulations of this Master Program shall be considered nonconforming signs and regulated per the Sultan sign regulations.
 5. Permanent signs shall be constructed of durable, weather-resistant materials.
 6. Billboards and other off-premises signs shall be regulated per Sultan sign regulations.
 7. The following types of signs are prohibited in all shoreline environments:
 - Signs that impair visual access from public viewpoints in view corridors
 - Signs placed on trees or other natural features
 - Roof mounted signs

Signs Environment Specific Regulations

Urban Center: Signs shall be permitted when consistent with the provisions of this Master Program and the Sultan sign regulations.

Aquatic, Urban Conservancy, Shoreline Residential and Natural: Signs may be permitted when consistent with the provisions of this Master Program and the following additional requirements:

1. When feasible, signs shall be flush mounted against existing buildings. Freestanding, on-premise signs must demonstrate that it is unfeasible to mount the sign on an exterior wall of the permitted development. Failure to satisfactorily comply with this requirement shall be sufficient grounds for denial of the application.
2. Where freestanding on-premise signs are approved, the sign shall not exceed six (6) feet in height.
3. All public and private enterprises, development, and services located in shoreline areas shall have no more than two (2) on-premise advertising devices or signs.
4. Spinners, streamers, pennants, flashing lights, and other animated signs used for commercial purposes shall be prohibited.

13. STORMWATER MANAGEMENT FACILITIES

Stormwater management facilities are utilities that retain, detain, clean and convey stormwater run-off.

Stormwater Management Facilities Policies

1. Stormwater conveyance facilities should utilize existing transportation and utility sites, rights-of-way and corridors, whenever possible. Joint use of rights-of-way and corridors should be encouraged.
2. Stormwater facilities should be prohibited within the riparian management areas, wetlands, and other critical areas.
3. New stormwater facilities should be located so as not to require any shoreline protection works.
4. New stormwater facilities should provide a net benefit to fish and wildlife habitat in the area as compared to leaving the riparian management zone undisturbed.
5. Stormwater facilities located in the shoreland area should be maintained only to the degree necessary to ensure the capacity and function of the facility including the removal of non-native invasive plant species.
6. The stormwater facility should be planted with native vegetation and where feasible provide for off-channel habitat for fish.
7. Low impact development techniques that allow for a greater amount of stormwater to infiltrate into the soil should be encouraged to reduce stormwater run-off.

Stormwater Management Facility Regulations

1. Applications for the installation of stormwater management facilities shall be prepared by a qualified professional and include the following:

- Description of the proposed stormwater facilities;
 - Reasons why the stormwater facility requires a shoreline location;
 - Alternative locations considered and reasons for their elimination; identification of any possibility for locating the proposed stormwater facility at another existing site or within an existing stormwater facility;
 - Location of other stormwater facilities in the vicinity of the proposed project and any plans to provide for consolidation of area-wide stormwater facilities that would reduce demand on shoreline locations;
 - Plans for reclamation of areas disturbed during construction;
 - Plans temporary sediment and erosion control during construction and operation;
 - A mitigation and monitoring plan per the requirements of the following sections contained in this chapter, *Environmental Impact and Environmental Impacts: Plants and Animals*.
2. New stormwater facilities shall be located so as not to require any shoreline protection works.
 3. Stormwater facilities shall not be located in the riparian management zone.
 4. Stormwater facility development shall include public access to the shoreline, trail systems, and other forms of recreation, providing such uses will not unduly interfere with stormwater facility operations, endanger the public health, safety, and welfare, or create a significant and disproportionate liability for the owner.
 5. Construction of stormwater facilities in shoreland areas or in adjacent wetlands shall be timed to avoid fish and wildlife migratory and spawning periods.

Stormwater Management Facilities Environment Specific Regulations

Urban Center: Stormwater management facilities shall be permitted when consistent with the provisions of this Master Program and the underlying zoning.

Shoreline Residential: Stormwater management facilities shall be a permitted activity when associated with a development that is consistent with the provisions of this Master Program.

Urban Conservancy and Natural: Stormwater management facilities may be permitted when consistent with the provisions of this Master Program, when integrated with a development proposal. Independent stormwater management facilities may be permitted as a shoreline conditional use.

14. TRANSPORTATION

Transportation facilities are those structures and developments that aid in land and water surface movement of people, goods, and services. They include roads and highways, bridges and causeways, bikeways, trails, railroad facilities, and boat and floatplane terminals.

Transportation Policies

1. New roads and railroads within shoreline jurisdiction should be minimized.
2. Roads and railroad locations should be planned to fit the topographical characteristics of the shoreline such that minimum alternation of natural conditions result. The number of river crossings should be minimized to the maximum extent possible.
3. Pedestrian and bicycle trails should be encouraged along Skykomish, Sultan, and Wallace Rivers to the maximum extent feasible.
4. When existing transportation corridors are abandoned they should be reused for water-dependent use or public access.
5. Joint use of transportation corridors within shoreline jurisdiction for roads, utilities, and motorized forms of transportation should be encouraged.

Transportation Regulations

1. Transportation facilities and services shall utilize existing transportation corridors wherever possible, provided the shoreline is not adversely impacted and the development is otherwise consistent with this Master Program.
2. Transportation and primary utility facilities shall be required to make joint use of rights-of-way and to consolidate river crossings.
3. The City shall maintain its current transportation plans under Title 10 – Vehicles and Traffic.
4. Landfills for transportation facility development are prohibited in water bodies and wetlands and on accretion beaches, except when all structural and upland alternatives have proven infeasible and the transportation facilities are necessary to support uses consistent with this Master Program.
5. Major new highways, freeways, and railways shall avoid being located in the shoreline jurisdiction to the extent practical, except where a river crossing is required. These roads shall cross shoreline areas and rivers by the shortest, most direct route, unless this route would cause more damage to the environment.
6. New transportation facilities shall be located and designed to minimize or prevent the need for shoreline modification.
7. New roads or road expansion in the shoreline environment should be a last option as other alternative must be explored outside of the shoreline environment.

8. All bridges must be built high enough to allow the passage of debris and provide eight (8) feet of clearance above the Sultan, Skykomish, and Wallace floodways, and three (3) feet of clearance above other portions of the 100-year floodplain.
9. Shoreline transportation facilities shall be sited and designed to avoid steep or unstable areas and fit the existing topography in order to minimize cuts and fills.
10. Cut and fill slopes shall be designed at the normal angle of repose or less.
11. Cut and fill and sidecast slopes shall be protected from erosion by mulching, seeding, compacting, riprapping, benching, or other suitable means.
12. Bridge abutments and necessary approach fills shall be located landward of the floodway, except bridge piers may be permitted in a water body as a shoreline conditional use.

Transportation Environment Specific Regulation

Urban Center: Transportation facilities shall be permitted when consistent with the provisions of this Master Program and the underlying zoning.

Shoreline Residential: Transportation facilities shall be a permitted use when associated with a development that is consistent with the provisions of this Master Program. Otherwise, transportation facilities may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

Urban Conservancy, Natural and Aquatic: Transportation facilities shall be a permitted use when associated with a development that is consistent with the provisions of this Master Program. Otherwise, transportation facilities may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

15. UNCLASSIFIED USES AND ACTIVITIES

In the event that a proposed shoreline use or activity is not identified or classified in this Master Program, the following regulation shall apply.

Regulations

1. All uses and activities proposed in the Sultan Shoreline jurisdiction that are not classified by provisions in this Master Program shall require a Shoreline Conditional Use Permit.

16. UTILITIES

Utilities are services and facilities that produce, transmit, carry, store, process, or dispose of electric power, oil, gas, water, sewage, communications, and the like.

Primary utilities include substations, pump stations, treatment plants, sanitary sewer outfalls, electrical transmission lines greater than 55,000 volts, water, sewer or storm drainage mains greater than eight (8) inches in diameter, gas and petroleum transmission lines, and submarine telecommunications cables. Accessory utilities include local public water, electric, natural gas distribution, public sewer collection, cable and telephone service and appurtenances.

Utility Policies

1. Utilities should utilize existing transportation and utility sites, rights-of-way and corridors, whenever possible. Joint use of rights-of-way and corridors should be encouraged.
2. Unless no other feasible alternative exists, utilities should be prohibited in the shoreline jurisdiction, wetlands and other critical areas and there shall be no net loss of ecological functions or significant impacts to other shoreline resources or values.
3. New utility facilities should be located so as not to require extensive shoreline protection works.
4. Whenever possible, utilities should be placed underground or alongside or under bridges.
5. Solid waste disposal activities and facilities should be prohibited in shoreline areas.

Utility Regulations

1. Applications for the installation of utility facilities shall include the following:
 - Description of the proposed facilities;
 - Reasons why the utility facility requires a shoreline location.
 - Alternative locations considered and reasons for their elimination. Identification of any possibility for locating the proposed facility at another existing utility facility site or within an existing utility right-of-way.
 - Location of other utility facilities in the vicinity of the proposed project and any plans to include the other types of utilities in the project.
 - Plans for reclamation of areas disturbed both during construction and following decommissioning and/or completion of the useful life of the utility.

- Plans for control of erosion and turbidity during construction and operation; and
2. Utility development shall, through coordination with local government agencies, provide for compatible, multiple use of sites and rights-of-way.
 3. Utility development shall include public access to the shoreline, trail systems, and other forms of recreation, providing such uses will not unduly interfere with utility operations, endanger the public health, safety, and welfare, or create a significant and disproportionate liability for the owner.
 4. Proposals for new utility corridors or river crossings shall fully substantiate the infeasibility of existing routes.
 5. Existing solid waste disposal and transfer facilities within shoreline jurisdiction shall be expeditiously phased out or rehabilitated.
 6. The following major utility facilities, which are not essentially water-dependent, may be permitted as a shoreline conditional use if it can be shown that no reasonable alternative exists.
 - Water system treatment plants;
 - Sewage system line, interceptors, pump stations, and treatment plants;
 - Electrical energy generating plants (except for instream structures), substations, lines, and cables.
 - Petroleum and gas pipelines.
 7. New solid waste disposal sites and facilities are prohibited.
 8. New utility lines including electricity, communications, and fuel lines shall be located underground, except where the presence of bedrock or other obstructions make such placement infeasible. Existing above ground lines shall be moved underground during normal replacement processes.
 9. Transmission and distribution facilities shall cross areas of shoreline jurisdiction by the shortest most direct route feasible, unless such route would cause significant environmental damage.
 10. Utility facilities requiring withdrawal of water from streams or rivers shall be located only where minimum flows as established by the Washington State Department of Fish and Wildlife can be maintained.
 11. Utility developments shall be located and designated so as to avoid the use of any structural or artificial shore modification works.
 12. Water lines shall be completely buried under the riverbed in all river crossings except where such lines may be affixed to a bridge structure and except for appropriate water or sewage treatment plant intake pipes or outfalls.

13. All underwater pipelines transporting liquids intrinsically harmful to aquatic life or potentially injurious to water quality are prohibited, unless no other alternative exists. In those instances where no other alternative exists, the use may be permitted as a shoreline conditional use. However, automatic shut-off valves shall be provided on both sides of the water body.
14. Construction of utilities underwater or in adjacent wetlands shall be timed to avoid fish and wildlife migratory and spawning periods.

Utility Environment Specific Regulations

Urban Center: Utility facilities shall be permitted when consistent with the provisions of this Master Program and the underlying zoning.

Shoreline Residential: Utility facilities shall be a permitted use when associated with a development that is consistent with the provisions of this Master Program. Otherwise, utility facilities may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

Urban Conservancy, Natural and Aquatic: Utility facilities may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

2

Shoreline Inventory

INTRODUCTION

As a foundation for the development of the goals policies and regulations in the City's Shoreline Master Program, the City conducted an inventory and assessment of natural and built conditions along the shorelines of Sultan. This inventory, the Shoreline Characterization, identifies existing conditions and provides an analysis that evaluates the components that make up the ecological health of the shoreline jurisdiction and identifies areas with potential for conservation and restoration of ecological functions. This chapter excerpts portions of that inventory and analysis. Please consult Appendix E: Shoreline Characterization for a full discussion of the complex issues associated with the Sultan shoreline.

Study Area Boundary

Under the State Shoreline Management Act, the City's shoreline jurisdiction includes areas within the City limits that are 200 feet landward of the floodway or ordinary high water mark of waters that have been designated as "shorelines of statewide significance" or "shorelines of the state" or their "associated wetlands."¹

The City of Sultan is located in Snohomish County, situated on the northern bank of the Skykomish River between River Mile 2 (RM) 34.4 near the mouth of the Sultan River and RM 35.7 near the mouth of the Wallace River (Figure 1). The City of Sultan encompasses approximately 1,916 acres, or about three square miles. U.S. Highway 2 (US 2) and the Burlington Northern Santa Fe (BNSF) Railroad corridors run east-west through southern portions of the City. The City's urban growth area (UGA) contains an additional 550 acres, or approximately 0.86 square miles comprised of residential development and undeveloped areas.

The study area for the Sultan Shoreline Characterization includes all land currently within the City's shoreline jurisdiction. These areas include lands within the City limits adjacent to the Skykomish River, Sultan River and Wallace River. Land adjacent to the Sultan River within the City's UGA is also generally described. Table 1 indicates the total

¹ These terms are discussed in more detail in Chapter I: *Introduction*, and in the definitions section.

² As defined by the distance upstream from the confluence with the Snohomish River.

length of each river, and the total length of each river segment within the City's shoreline jurisdiction.

Table 1. Rivers within Sultan Shoreline Jurisdiction

River	Total River Length	Length within Sultan's Shoreline Jurisdiction
Skykomish River (mainstem)	50 miles	1.4 miles
Sultan River	30.4 miles	1.3 miles (within City limits) 1.6 miles (within City's UGA)
Wallace River	15.1 miles	0.3 miles

Source: (Williams, et al., 1975)

The Sultan and Wallace Rivers are designated as "shorelines of the state" because their mean annual flow upstream of the City of Sultan is equal to or greater than 20 cfs. Although Winters and Wagleys creeks flows are less than 20 cfs, those portions of both creeks that fall within designated floodways of the Sultan and Skykomish Rivers respectively are within the City's shoreline jurisdiction. The Skykomish River is designated as a "shoreline of statewide significance" because its mean annual flow upstream of the City is equal to or greater than 1000 cfs.

Inventory

For the purposes of categorizing distinct segments of the City's shorelines for planning purposes, the City's shoreline jurisdiction was classified into four relatively homogeneous segments. The City's UGA shoreline was addressed in an additional segment. These segments were grouped to correspond with the level of ecological functions provided by each segment for salmonids (including but not limited to streambank vegetation, potential spawning areas, and off-channel habitat).

Table 2. Shoreline Planning Segments

Segment	River	Approximate Length (feet)	Approximate River Mile	Approximate Acreage
A	Sultan River (East Bank – from north of River Park to City Limits)	6,336	0.1 to 1.3	185
	Sultan River (West Bank – from west of the wastewater treatment plant to the City limits)	1,056	0.3 to 0.5	
B	Sultan River (East Bank – confluence with Skykomish and River Park)	528	0 to 0.1	13

	Sultan River (West Bank – from confluence with Skykomish including Sportsman’s Park and the wastewater treatment plant)	1,584	0 to 0.3	
C	Skykomish River (North Bank within City Limits – from confluence with Sultan River to confluence with Wallace River)	7,392	34.3 to 35.7	68
	Wallace River (confluence with Skykomish within City Limits)	1,584	0 to 0.3	
D	Wallace River (Some portions – from Cemetery Park to 339th Ave. SE)	2,640	0.3 to 0.8	3
E	Sultan River (City Limits to UGA Boundary – East Bank)	8,448	1.3 to 2.9	89

Land Use Patterns, Transportation and Utility Facilities

Land use in the City’s shoreline jurisdiction includes a mixture of single-family and multi-family residential, downtown and highway-oriented commercial development, and parks and recreation areas. The City’s shoreline jurisdiction along the Skykomish River includes portions of the downtown central business district as well as large residential or undeveloped areas. The Sultan River and portions of the Wallace River within the City’s shoreline jurisdiction are predominantly parks, open space, and recreational areas. The land use within the UGA along the east bank of the Sultan River is predominantly residential or undeveloped.

Major roads and transportation facilities in Sultan’s shoreline jurisdiction include US 2 and the BNSF railroad. Other roads in the shoreline jurisdiction include 1st Street and smaller roads providing access to residential areas from US 2 or the downtown central business district.

The City of Sultan Municipal Wastewater Treatment Plant is located on the west bank of the Sultan River near the confluence with the Skykomish River. Treated effluent is discharged into the Skykomish River downstream from the Sultan River confluence, just outside of the City limits. The stormwater drainage system in the City of Sultan directs runoff to Wagleys Creek, the Sultan and Skykomish Rivers, and various wetlands. Runoff alternatives will be addressed by a Surface Water Management Plan currently being developed by the City. The downtown area of the City is served by combined stormwater and sanitary sewer conveyance. High-flow periods during storms can result in combined flows of wastewater and stormwater and the discharges of untreated sewage through stormwater outfalls into the Sultan and Skykomish Rivers.

Shoreline Modifications

The shoreline modifications (i.e., structural alterations of the river’s natural bank, such as levees, dikes, floodwalls, riprap, bulkheads, docks, piers or other in-water structures) present along Sultan rivers include bulkheads in residentially developed areas along the

Skykomish River, riprap along the Skykomish River, and pilings supporting the US 2 and BNSF bridges near the confluence of the Sultan and Skykomish Rivers.

Existing and Potential Public Access Sites

The City of Sultan, Sultan School District, and Washington Department of Fish and Wildlife have developed a variety of park, recreation, and open space facilities within the City, many of which provide access to the shoreline jurisdiction. These resource areas include wildlife conservancies and natural areas as well as trails, boat ramps and other recreational areas.

Critical Areas and Special Status Species

A range of sources provide information on the location of various critical areas within the Sultan shoreline jurisdiction. The Shoreline Characterization Report contains information on critical areas such as frequently flooded areas, stream areas, wetland areas, and steep slope areas.

Information on special status fish and wildlife species and habitat areas was obtained from several sources. Special status species are species that are listed or proposed for listing under the State or Federal Endangered Species Act, identified by WDFW as state Priority Species, or identified by the U.S. Fish and Wildlife Service (USFWS) as Species of Concern. The following special status species may occur within the vicinity of the City:

- Wintering bald eagles (*Haliaeetus leucocephalus*)
- Bull Trout (*Salvelinus confluentus*)
- Chinook Salmon (*Oncorhynchus tshawytscha*)
- Long-eared Myotis (Bat) (*Myotis evotis*)
- Long-legged Myotis (Bat) (*Myotis volans*)
- Olive-sided Flycatcher (*Contopus cooperi*)
- Pacific Lamprey (*Lampetria tridentata*)
- Peregrine Falcon (*Falco peregrinus*)
- River Lamprey (*Lampetria ayresi*)
- Western Gray Squirrel (*Sciurus griseus*)
- Western Toad (*Bufo boreas*)

Floodplains and Channel Migration Zones

Floodplains are a substantial feature in the City, extending through much of the City's shoreline jurisdiction, as well as beyond the shoreline to other portions of the City, including the central business district. The City is highly flood-prone, having the highest number of flood insurance policies of all Snohomish County cities and towns; the seventh highest number of claims of all Washington State cities and towns; and the sixteenth highest number of claims of the 286 jurisdictions that participate in the National Flood Insurance Program in Washington State.

Other Areas of Potential Interest

Priority habitats, rapidly developing waterfronts, eroding shorelines, or other degraded sites with potential for ecological restoration were identified through document research and during a field reconnaissance of the study area in February 2003.

Opportunity Areas

Opportunity areas are those areas within the shoreline jurisdiction that may be appropriate for protection and /or restoration, including elements such as wetlands, habitat, riparian (streamside) vegetation, and river banks modified by riprap or bulkheads. Opportunity areas were identified through a literature review as well as a field reconnaissance of the study area in February 2003. These areas and their characteristics are described in more detail in the Shoreline Characterization Report.

- 6. Subdivisions and planned unit developments of five (5) or more waterfront lots/units shall dedicate, improve, and provide maintenance provisions for a pedestrian easement that provides area sufficient to ensure usable access to and along the shoreline for all residents of the development and the general public. When required, public access easements shall be a minimum of twenty-five (25) feet in width and shall comply with the public access standards contained in this Master Program (see Chapter 6 section on Public Access).

Residential Environment Specific Regulations

Attach F

Residential development may be permitted within the Ordinance of the OHHM when consistent with applicable environment setbacks.

Residential development shall be permitted within the provisions of this Master Program and

10. SHC

measures that provide riverbank stabilization or other measures that are designed to reduce adverse impacts caused by wind, or wave action. Shoreline stabilization measures include structural means to reduce erosion of

permanent and temporary structures, relocation of the structure to be protected, ground water management, planning, bioengineering or "soft" engineered solutions, and regulatory measures to avoid the need for structural stabilization

"Hard" structural stabilization measures refer to those with solid, hard surfaces, such as concrete bulkheads, while "soft" structural measures rely on softer materials, such as biotechnical vegetation measures or beach enhancement. Generally, the harder the construction measure, the greater the impact on shoreline processes, including sediment transport, geomorphology, and biological functions. Structural shoreline stabilization also often results in vegetation removal and damage to near-shore habitat and shoreline corridors. There is a range of measures varying from soft to hard that include:

- Vegetation enhancement;
- Upland drainage control;
- Biotechnical measures;
- Beach enhancement;
- Anchor trees;

- Gravel placement;
- Rock revetments;
- Gabions;
- Concrete groins;
- Retaining walls and bluff walls; and
- Bulkheads.

Note: As applied to shoreline stabilization measures, "normal repair" and "normal maintenance" include the patching, sealing, or refinishing of existing structures, the replenishment of sand or other material that has been washed away, and the replacement of less than twenty percent (20%) of the structure. Normal maintenance and normal repair are limited to those actions that are typically done on a periodic basis. Construction that causes significant ecological impacts is not considered normal maintenance and repair.

As applied to shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure that can no longer adequately serve its purpose.

Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.

The following policies and regulations apply to all actions and developments that modify the shoreline for the purposes of preventing riverbank erosion or flooding. Following these general requirements, specific policies and regulations are provided for bulkheads, revetments, and dikes and levees.

Shoreline Modification Policies - General

1. Riprapping and other bank stabilization measures should be located, designed, and constructed primarily to prevent damage to the existing primary structure.
2. All new development should be located and designed to prevent or minimize the need for shoreline stabilization measures and flood protection works. New development requiring shoreline stabilization should be discouraged.
3. Shoreline modifications are only allowed when and where there is a demonstrated necessity to support or protect an allowed primary structure or legally existing shoreline use that is in danger of loss or substantial damage or are necessary for reconfiguration of shoreline for mitigation or enhancement purposes.
4. Proposals for shoreline modifications should be designed to protect life and property without impacting upstream or downstream uses of the floodway or river resources.
5. Stabilization and protection works which are more natural in appearance, more compatible with ongoing shore processes, and more flexible for long term floodway

management such as protective berms or vegetative stabilization should be encouraged over structural means such as concrete bulkheads or extensive revetments.

4. All Shoreline stabilization proposals require a geotechnical analysis.
5. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would not be able to reduce the damage.
6. Shoreline modifications shall only be constructed of clean natural materials such as rock and gravel, use of other non-natural materials not designed for the purpose of shoreline stabilization should be prohibited.
7. Substantial river channel realignment should be discouraged as a means of shoreline stabilization and flood protection.
8. The design of bank stabilization or protection works should provide for the long term multiple use of shoreline resources and public access to public shorelines. In the design of publicly financed or subsidized works, consideration should be given to providing pedestrian access to shorelines for low intensity outdoor recreation.
10. All flood protection measures should be placed landward of the natural floodway boundary, including wetlands that are directly interrelated and inter-dependent with the river.
11. If through construction and/or maintenance of shoreline modification developments, the loss of riparian vegetation and wildlife habitat will occur, mitigation should be required.

Shoreline Modification Regulations - General

1. All new shoreline modification activity shall be located and designed to prevent or minimize the need for bank stabilization and flood protection works.
2. All shoreline development and activity shall be located, designed, constructed, and managed in a manner that mitigates adverse impacts to the environment. The preferred mitigation sequence (avoid, minimize, mitigate, compensate) shall follow that listed in WAC 173-26-201 (2)(e)
3. The City shall require and utilize the following information during its review of shoreline stabilization and flood protection proposals:
 - Purpose of the project;
 - Hydraulic characteristics of the river within one-half (0.5) mile upstream and downstream of the proposed project;
 - Existing shoreline stabilization and flood protection devices within one-half (0.5) mile upstream and downstream of the proposed project;
 - Biological characteristics of the area, including fish and wildlife resources;

- Construction material and methods;
 - Physical, geological, and/or soil characteristics of the area;
 - Geotechnical report;
 - Predicted impact upon area shore and hydraulic processes, adjacent properties, and shoreline and water uses; and
 - Alternative measures (including non-structural) that will achieve the same purpose.
3. Shoreline stabilization and flood protection measures shall not be designed and constructed in such a manner as to result in channelization of normal stream flows.
 4. River and stream channel direction modification, and realignment are prohibited unless they are essential to uses that are consistent with this Master Program.
 5. New nonwater-dependent development, including single-family residences, that includes structural shoreline stabilization shall not be allowed unless *all* of the conditions below apply, otherwise new stabilization measures are limited to protecting only existing developments:
 - The need to protect the development from destruction due to erosion caused by natural processes, such as currents and waves, is demonstrated through a geotechnical report.
 - The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.
 - There will be no net loss of ecological functions or impacts on adjacent or down current properties.
 - Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements and soft structural solutions such as bioengineering, are not feasible or not sufficient.
 - The structure will not cause significant impacts to functions and values of critical areas or properly functioning conditions for proposed, threatened, and endangered species.
 - Other mitigation/restoration measures are included in the proposal.
 6. Flood control diking shall be landward of the floodway base (100-year frequency) and any wetlands directly interrelated and interdependent with the river.
 7. Upon project completion, all disturbed shoreline areas shall be restored to as near pre-project configuration as possible and replanted with appropriate vegetation. All

losses in riparian vegetation or wildlife habitat shall be mitigated at a ratio of 1:1.25 (habitat lost to habitat replaced).

8. Shoreline stabilization and flood protection works are prohibited in wetlands and on point and channel bars. They are also prohibited in salmon or trout spawning areas.
9. Shore modification shall to the extent possible, be planned, designed, and constructed to allow for channel migration. These developments shall not reduce the volume and storage capacity of rivers and adjacent wetlands or flood plains.
10. Use of car bodies, scrap building materials, asphalt from street work, or any discarded piles of equipment or appliances for the stabilization of shorelines shall be prohibited.

Shoreline Modifications

Permitted and shoreline conditional use requirements for bulkheads, revetments, and dikes and levees are specified under these headings below. All other forms of shoreline modification must be approved as a shoreline conditional use within all of the shoreline environments.

BULKHEADS

Bulkheads are walls usually constructed parallel to the shore whose primary purpose is to contain and prevent the loss of soil by erosion, wave, or current action. Bulkheads are used to protect riverbanks by retaining soil at the toe of the slope or by protecting the toe of the bank from erosion and undercutting.

Bulkheads are typically constructed of poured-in-place concrete, steel or aluminum sheet piling, wood, or wood and structural steel combinations.

Note: The Shoreline Management Act only exempts the construction of a normal protective bulkhead common to an existing single family residence from the Shoreline Substantial Development Permit requirement. However, these structures are required to comply with all the policies, prohibitions, and development standards of this Master Program.

Bulkhead Policies

1. Defense works of natural materials, such as protective berms, beach enhancement, or vegetative stabilization are strongly preferred over structural defense works of materials such as steel, wood, or concrete. Proposals for bulkheads should demonstrate that natural methods are unworkable.
2. Bulkheads should be located, designed, and constructed primarily to prevent damage to the existing primary structure. New development that requires bulkheads should be discouraged.
3. Shoreline uses should be located in a manner so that bulkheading is not likely to become necessary in the future.

4. The cumulative effect of allowing bulkheads along river segments should be evaluated. If it is determined that the cumulative effect of bulkheads would have a deleterious effect on the shoreline, then exemptions and permits should not be granted.
5. Bulkheads should not be approved as a solution to geo-physical problems such as mass slope failure, sloughing, or landslides. Bulkheads should only be approved for the purposes of preventing bank erosion by the river.

Bulkhead Regulations

1. Bulkheads may be allowed only when evidence is presented which conclusively demonstrates that one of the following conditions exist:
 - Serious river erosion threatens an established use or existing primary structure on upland property.
 - Bulkheads are necessary to the operation and location of water-dependent, water-related, or water-enjoyment activities consistent with this Master Program; provided that all other alternative methods of shore protection have proven infeasible.
 - A bulkhead is necessary to retain a landfill that has been approved consistent with the provisions of this Master Program.
 - Proposals for bulkheads must first demonstrate through a geotechnical analysis that use of natural materials and processes and non-structural or soft structural solutions to bank stabilization are unworkable.
2. The construction of a bulkhead for the primary purpose of retaining a landfill shall be allowed only in conjunction with:
 - A water-dependent use;
 - A bridge or navigational structure for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist;
 - A wildlife or fish enhancement project.
3. Bulkheads shall not be located on shorelines where valuable geo-hydraulic or biological processes are sensitive to interference. Examples of such areas include wetlands and accretion landforms.
4. Bulkheads are to be permitted only where local physical conditions, such as foundation bearing materials, and surface and subsurface drainage, are suitable for such alterations.
5. If possible, bulkheads shall be located landward of the OHWM and generally parallel to the natural shoreline. In addition:

- Where no other bulkheads are adjacent, the construction of a bulkhead shall be as close to the eroding bank as possible and in no case shall it be more than three (3) feet from the toe of the bank.
 - A bulkhead for a permitted landfill shall be located at the toe of the fill.
 - Where permitted a bulkhead must tie in flush with existing bulkheads on adjoining properties, except where the adjoining bulkheads extend waterward of the floodway, the requirements set forth in this section shall apply.
6. Replacement bulkheads may be located immediately in front of the bulkhead to be replaced such that the two (2) bulkheads will share a common surface, except where the existing bulkhead has not been backfilled or has been abandoned and is in serious disrepair. In such cases, the replacement bulkhead shall not encroach waterward of the OHWM or existing structure unless the residence was occupied prior to January 1, 1992 and there are overriding safety or environmental concerns.
 7. Bulkheads shall be sited and designed consistent with appropriate engineering principles. All bulkheads proposals require a geotechnical study.
 8. When a bulkhead is required at a public access site, provision for safe access to the water shall be incorporated into bulkhead design.
 9. Bulkheads shall be designed for the minimum dimensions necessary to adequately protect the development.
 10. Stairs or other permitted structures may be built into a bulkhead but shall not extend waterward of it.
 11. Bulkheads shall be designed to permit the passage of surface or groundwater without causing ponding or saturation of retained soil/materials.
 12. Adequate toe protection consisting of proper footings, a fines retention mesh, etc., shall be provided to ensure bulkhead stability without relying on additional riprap.
 13. Materials used in bulkhead construction shall meet the following standards:
 - Bulkheads shall utilize stable, nonerodable, homogeneous materials such as concrete, wood, and rock that are consistent with the preservation and protection of the ecological habitat.
 - Shore materials shall not be used for fill behind bulkheads, except clean dredge spoil from a permitted off-site dredge and fill operation.

Bulkhead Environment Specific Regulations

Aquatic, Urban Conservancy, Shoreline Residential and Natural: Normal protective bulkheads associated with an existing single family house and that are exempt from the Shoreline Substantial Development Permit requirement, shall be permitted when consistent with the provisions of this Master Program. All other bulkheads may be

permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

DIKES AND LEVEES

Dikes and levees are man-made earthen embankments for the purpose of flood control.

Note: Dikes and levees existing on September 8, 1975, which were created, developed, or utilized primarily as an agricultural drainage or diking system may be operated and maintained without obtaining a shoreline Substantial Development Permit. Maintenance does not include expanding the length or width of the dike or levee. However, reconstruction to the original built height may be allowed, if settling has occurred.

Dikes and Levees Policies

1. Dikes and levees should be located, designed, constructed, and maintained so that the resultant effects on the river processes will not cause significant damage to adjacent properties or valuable resources.
2. Proposals for dikes and levees should be designed to protect life and property without impacting upstream or downstream uses of the floodway or river resources.
3. Decisions regarding dikes and levees should balance the benefits of development with potential flood losses and destruction of natural and beneficial floodplain values. Floodplain values include water resource values (moderation of floods, water quality maintenance, and groundwater recharge), living resource values (fish, wildlife, and plant resources and habitat), cultural resource values (open space, natural beauty, scientific study, outdoor education, and recreation) and cultivated resource values (agriculture, aquaculture, and forestry).

Dikes and Levees Regulations

1. Dikes and levees shall be limited in size to the minimum height required to protect adjacent lands from the projected flood stage, as identified in the Sultan Flood Damage Prevention code, Chapter 17.08 SMC, Ordinance 808-03, 3/9/03, Appendix A.
2. Dikes and levees shall not be placed in the floodway, except as current deflectors necessary for protection of bridges and roads.
3. Public access to the shoreline shall be provided. Improved trail systems along diked or leveed shorelines are preferred.
4. Proposals for dikes and levees shall contain a detailed evaluation of potential losses to floodplain values. This evaluation shall address:
 - Groundwater discharge
 - Associated wetlands
 - Water quality

- Erosion/sedimentation.
5. Dikes and levees shall only be authorized by Shoreline Conditional Use Permit and shall be consistent with all flood control management plans and regulations adopted by the City of Sultan.

Dikes and Levees Environment Specific Regulation

Aquatic, Urban Center, Urban Conservancy, Shoreline Residential and Natural:

Dikes and levees may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

REVETMENTS

A revetment is a sloped shoreline structure built to protect an existing eroding shoreline or newly placed fill against river currents. Revetments are most commonly built of randomly placed boulders (riprap) but may also be built of sand cement bags, paving, or building blocks, gabions (rock filled wire baskets) or other systems and materials. The principal features of a revetment, regardless of type is a heavy armor layer, a filter layer, and toe protection.

Revetment Policies

1. The use of armored structural revetments should be limited to situations where it is determined that nonstructural solutions such as bioengineering, setbacks, buffers or any combination thereof, will not provide sufficient shoreline stabilization.
2. Revetments should be designed, improved, and maintained to provide public access whenever possible.

Revetment Regulation

1. The Shoreline Administrator shall require professional design of a proposed revetment, if it is determined that uncertainties exist, such as:
 - Inadequate data on local geophysical conditions;
 - Inadequate data on stream flow, velocity, and/or flood capacity; and
 - Effects on adjacent properties.
2. Bank revetments, where permitted shall be placed at the extreme edge of the riverbank.
3. Design of public works shall include and provide improved access to public shorelines whenever possible.
4. When permitted, the siting and design of revetments shall be performed using appropriate engineering principals, including guidelines of the U.S. Soil Conservation Service and the U.S. Army Corps of Engineers.

5. If an armored revetment is employed the following design criteria shall be met:
- The size and quantity of the material shall be limited to only that necessary to withstand the estimated energy intensity of the hydraulic system;
 - Filter cloth must be used to aid drainage and help prevent settling;
 - The toe reinforcement or protection must be adequate to prevent a collapse of the system from river scouring or wave action; and
 - Fish habitat components, such as large boulders, logs, and stumps shall be considered in the design subject to Hydraulic Project Approval by the Washington Department of Fisheries.

Revetment Environment Specific Regulation

Aquatic, Urban Conservancy, Shoreline Residential and Natural: Revetments may be permitted as a Shoreline Conditional Use when consistent with the provisions of this Master Program.

11. SIGNS

Sign Policy

Signs should be designed and placed so that they are compatible with the natural quality of the shoreline environment and adjacent land and water uses.

Sign Regulation

Signs within the City of Sultan are subject to the requirements and standards specified in the Sultan sign regulations (Chapter 22.06 SMC, Ordinance 806-03 § 1, Appendix D). In addition, the following sign requirements shall apply to signs within shoreline jurisdiction.

1. Signs shall only be allowed in, or over water for water navigation, highway or railroad crossings as necessary for operation, safety and direction; or related and necessary as part of a water dependent use.
2. The following types of signs are permitted in all upland shoreline environments (e.g., excluding all areas waterward of the ordinary high water mark in the shoreline environment):
 - Water navigational signs, highway and railroad signs necessary for operation, safety, and direction.
 - Public information signs directly relating to an allowed local shoreline activity.
 - Off-premise, free standing signs for community identification, information, or directional purposes.